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## III. Rural Public Facilities and Service

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The policies below set forth King County's general approach to providing services and setting facility standards for the Rural Area and provide guidance for siting those facilities that require Rural Area locations. See Chapter Six, Transportation, and Chapter Seven, Facilities and Utilities, for more detailed policies on specific facilities and services such as roads, on-site sewage treatment and disposal systems and water supply.

In order to focus growth within the Urban Growth Area, financial resources must be prioritized to develop and maintain sufficient urban infrastructure and services in the UGA to accommodate that growth. Further, the presence of a high level of public infrastructure and services has been demonstrated to create pressure for new growth. For example, the taxpayer-supported road network constructed in eastern King County over the last twenty to thirty years has been the greatest source of growth pressure in the rural and natural resources area. To use financial resources efficiently and reduce growth pressure in the Rural Area, King County will not provide an urban level of infrastructure and services to the Rural Area. Chapter 6, Transportation and Chapter 7, Facilities and Utilities, clarify King County priorities for transportation and other facility improvements in the rural and natural resource areas.

- R-301      King County shall work with cities and other agencies providing services to the Rural Area to adopt standards for facilities and services in the Rural Area that protect basic public health and safety and the environment, but are financially supportable at rural densities and do not encourage urban development.**
- R-302      Public spending priorities for facilities and services within the Rural Area should be as follows:**
- a.    First, to maintain existing facilities and services that protect public health and safety; and**
  - b.    Second, to upgrade facilities and services when needed to correct level-of-service deficiencies without unnecessarily creating additional capacity for new growth.**
- R-303      In the Rural Area, standards and plans for utility service should be consistent with long-term, low-density development and resource industries. Utility facilities that serve the Urban Growth Area but must be located in the Rural Area (for example, a pipeline from a municipal watershed) should be designed, and scaled to serve primarily the Urban Growth Area. Sewers needed to serve previously established urban "islands," rural cities or Rural Towns or new or existing public schools or public school facilities, shall be tightlined and have access restrictions precluding service to the Rural Area.**

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## IV. Rural Cities, Towns and Neighborhoods

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Rural cities and unincorporated Rural Towns within the Rural Area contribute to variety in development patterns and housing choices and provide employment opportunities, retail shopping and other services to nearby residents. These cities and towns also contain a significant portion of King County's historic architecture and are the primary locations for nonresidential uses in the Rural Area. Rural King County also contains several small Rural Neighborhoods, which provide limited, local convenience shopping.

### A. Rural Cities

King County's rural cities are incorporated areas whose local governments are involved in the region's planning processes on an equal legal basis with the suburban cities and Seattle. The incorporated rural cities are Black Diamond, Carnation, Duvall, Enumclaw, North Bend, Skykomish and Snoqualmie.

The Growth Management Act stipulates that rural cities and their Urban Growth Areas are to be treated as part of the Urban Growth Area. The Countywide Planning Policies also provide for urban land uses and densities and urban services in those locations. Excessive growth in rural cities and Rural Towns, however, may create pressure for extending urban services (for example, roads) across the Rural Area or Natural Resource Lands, may increase conversion pressure on nearby Natural Resource Lands and adversely affect rural character. Therefore, King County views rural cities as qualitatively different from the Urban Growth Area as a whole, even though they may provide significant opportunities for residential or employment growth.

King County has worked with the rural cities to establish Urban Growth Areas to accommodate growth. These areas are shown as part of the Urban Growth Area on the Comprehensive Plan Land Use Map.

**R-401      The rural, incorporated cities and their Urban Growth Areas shall be considered part of the Urban Growth Area for purposes of planning land uses and facility needs. King County should work with rural cities to encourage the provision of affordable housing, to minimize the impacts of new development on the surrounding rural land and to plan for growth consistent with long-term protection of significant historic resources, the surrounding Rural Area and Natural Resource Lands.**

**R-402      Within Rural City Urban Growth Areas, the following uses shall be permitted until the area annexes to the city:**

- a. Residential development at a density of 1 home per 5 acres or less with mandatory clustering; and**
- b. Nonresidential development such as commercial and industrial as determined through previous subarea plans.**

### B. Rural Towns

Rural Towns are unincorporated towns governed directly by King County, but may provide a focal point for community groups such as chambers of commerce or community councils to participate in public affairs.

The purposes of the Rural Town designation are to recognize existing concentrations of higher density and economic activity in Rural Areas, whether by virtue of historical rural settlements or redesignation of an urban commercial center; provide a physical focus for the historic identity of rural communities; and to

allow for modest growth of residential and economic uses within these designations if supported by the community and adequate utilities and other public services are available.

Although higher-density development in Rural Towns may require public sewers, applying the full range of urban development standards (e.g. for street improvements or landscaping) may not be necessary, and may not be consistent with the historic character of these communities. Although Rural Towns also may in some circumstances develop at densities similar to those in the Urban Growth Area or in rural cities, they are considered part of the Rural Area for purposes of the GMA, do not provide significant growth capacity, and are not subject to the growth targets adopted for the UGA.

- R-403**      **King County hereby designates the Rural Towns of Fall City, Snoqualmie Pass and the Town of Vashon as unincorporated Rural Towns. These historical settlements in unincorporated King County should provide services and a range of housing choices for Rural Area residents. The boundaries of the designated Rural Towns are shown on the Comprehensive Plan Land Use Map. Adjustments to these boundaries shall only occur through a subarea planning process, and shall not allow significant increases in development potential or environmental impacts. No new Rural Towns are needed to serve the Rural Area.**
- R-404**      **Commercial and industrial development that provides employment, shopping, and community and human services that strengthen the fiscal and economic health of rural communities should locate in Rural Towns if utilities and other services permit.**
- R-405**      **Rural Towns may contain higher-density housing than permitted in the surrounding Rural Area, and should provide affordable and resource-worker housing if utilities and other services permit. Development density in Rural Towns may approach that achieved in Rural Cities.**

The policies in this section apply only to the unincorporated Rural Towns. King County encourages rural cities to adopt land use policies and development standards that protect and enhance their historical character.

- R-406**      **Rural Towns serve as activity centers for the Rural Area and may be served by range of utilities and services, and may include several or all of the following land uses, if supported by necessary utilities and other services and if scaled and designed to protect rural character:**
- a. Retail, commercial and industrial uses to serve the surrounding Rural Area population and to provide support for resource industries and tourism;**
  - b. Residential development, including single-family housing on small lots as well as multifamily housing and mixed-use developments;**
  - c. Other commercial and industrial uses, including commercial recreation and light industry; and**
  - d. Public facilities and services such as community services, churches, schools, and fire stations.**
- R-407**      **Sewers may be allowed in Rural Towns if necessary to solve existing water quality and public health problems which cannot be addressed by other methods, provided that any extension of sewer mains from urban areas to serve a rural town shall be tightlined systems designed to not serve any intervening lands. All alternatives shall be exhausted before sewers may be allowed. Rural towns shall not be enlarged to facilitate provision of sewers.**

Rural and urban residents alike value the historic character of King County's Rural Towns. New development can enhance the character and valuable features of Rural Towns through careful design and location.

- R-408** Rural Towns should be compact, promoting pedestrian and nonmotorized travel while permitting automobile access to most commercial and industrial uses. New development should be designed to strengthen the desirable characteristics and the historic character of the town, be supported by necessary public facilities and services, and be compatible with historic resources and nearby rural or resource uses. New industrial uses should locate where they do not disrupt pedestrian or bicycle traffic in established retail areas of town or conflict with residential uses.

### **C. Rural Neighborhoods**

Rural neighborhoods are small commercial developments, or in some cases, historic towns or buildings, that are too small to provide more than convenience shopping and services to surrounding residents. They generally do not have services such as water supply or sewage disposal systems any different from those serving surrounding rural development. Examples of rural neighborhoods include the store at Stillwater on the Carnation-Duvall Road, the town of Cumberland on the Enumclaw Plateau, and Preston.

- R-409** The rural neighborhoods designated on the Comprehensive Plan Land Use Map are small-scale business areas that should provide convenience shopping and services for the surrounding community. No new rural neighborhoods are needed to serve the Rural Area. Expansion of the boundaries of the existing rural neighborhoods shall not be permitted except through the subarea plan process.

The designated rural neighborhoods shown on the Land Use map are:

<b>Bear Creek:</b>	Cottage Lake and Redmond-Fall City Road/236th NE
<b>East King County:</b>	Greenwater, Baring and Timberlane Village
<b>Enumclaw:</b>	Cumberland, Krain's Corner and Newaukum
<b>Newcastle:</b>	Coalfield and East Renton Plateau
<b>Snoqualmie:</b>	Preston and Stillwater
<b>Tahoma/Raven Heights:</b>	Maple Valley, Hobart, Ravensdale and North Cedar Grove Road
<b>Vashon:</b>	Burton, Dockton, Tahlequah, Portage, Heights Dock, Jack's Corner, Vashon Center, Vashon Service Center, Vashon Heights and Maury Island Service Center

The policies in this section are based on a recognition of the limited size of most rural neighborhoods, the limited utilities and other services available to them, and a desire to preserve their existing character and relationship to the surrounding rural community.

- R-410** Rural neighborhoods should accommodate only small-scale retail, community and human services and personal service uses that provide convenience shopping and services to nearby Rural Area residents. If land suitable for residential development is included within the boundaries of a rural neighborhood, it should be zoned for rural residential development consistent with the residential development policies of this plan.
- R-411** King County should adopt commercial development standards for rural neighborhoods that facilitate economic reuse of existing structures, minimize increases in impervious surfaces and encourage retention of historic character and scale. Urban-level parking, landscaping and street improvement standards are not appropriate for Rural Neighborhoods.

### **D. Nonresource Industrial Uses and Development Standards in the Rural Area**

There are two existing industrial areas in the Rural Area containing multiple industrial uses on several sites. One is located within the southwest portion of the Town of Vashon and the second is a designated industrial area adjacent to the rural neighborhood of Preston. The Preston Industrial Area recognizes an existing concentration of industrial uses that contributes to the economic diversity of the Rural Area, but expansion of this industrial area beyond the identified boundaries is not permitted (see policy C-941).

**R-412        New industrial uses in the Rural Area shall be permitted only in Rural Towns and in the designated industrial area adjacent to the Rural Neighborhood of Preston.**

In order to preserve rural character and protect sensitive natural features, new rural industrial development needs to be of a scale and nature that is distinct from urban industrial development. The scale and intensity and many of the uses allowed in urban industrial development are not appropriate for rural industrial areas. The following policy applies to all new industrial development in the Rural Area.

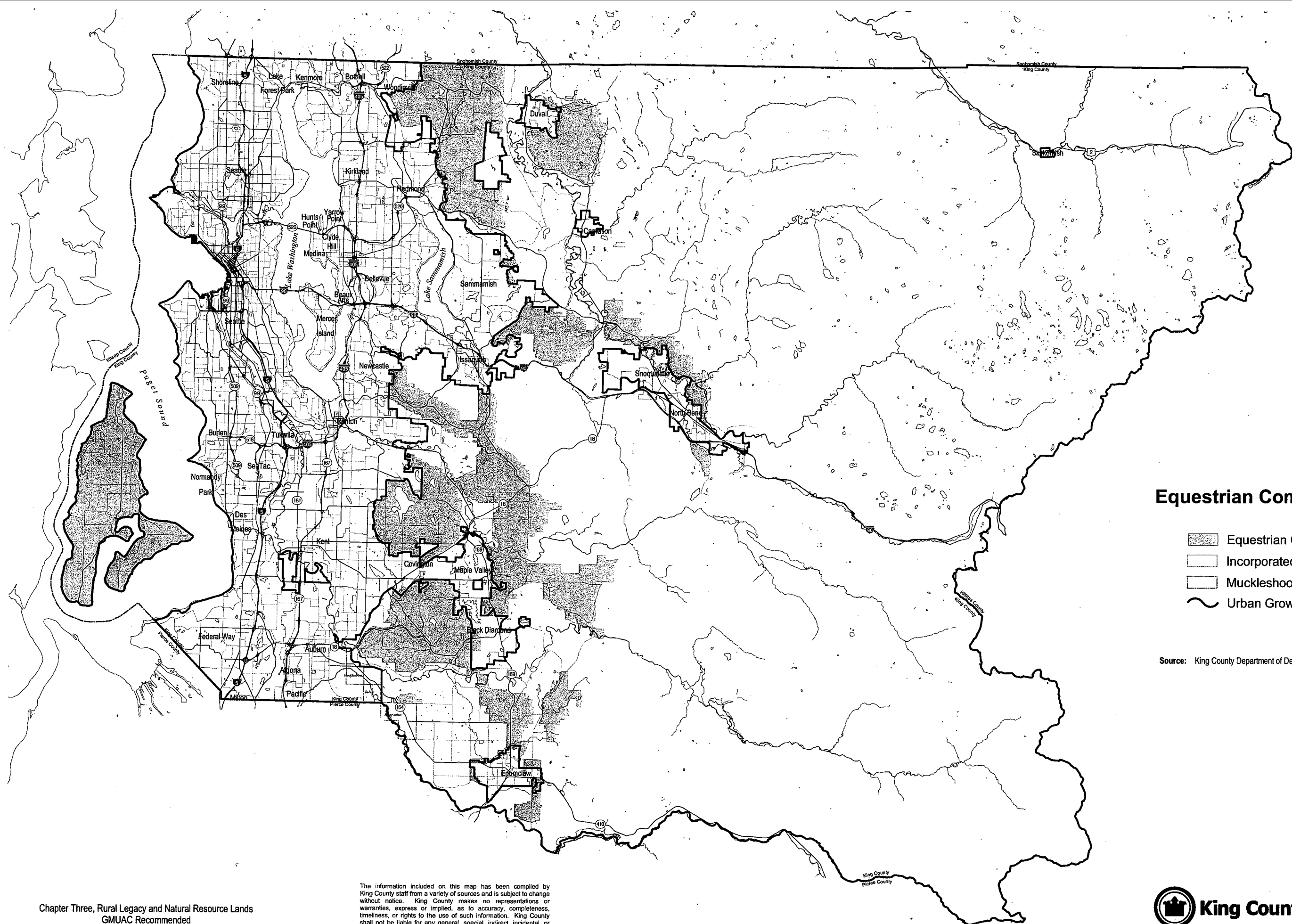
**R-413        Development regulations for nonvested industrial development in the Rural Area shall require the following:**

- a. Greater setbacks, and reduced building height, floor/lot ratios, and maximum impervious surface percentage standards in comparison to standards for urban industrial development.**
- b. Maximum protection of sensitive natural features, especially salmonid habitat and water quality.**
- c. Building and landscape design that respects the aesthetic qualities and character of the Rural Area, and provides substantial buffering from the adjoining uses and scenic vistas.**
- d. Building colors and materials that are muted, signs that are not internally illuminated, and site and building lighting that is held to the minimum necessary for safety.**
- e. Heavier industrial uses, nonvested industrial uses producing substantial waste byproducts or wastewater discharge, or nonvested paper, chemical and allied products manufacturing uses in the urban industrial zone shall be prohibited.**
- f. Industrial uses requiring substantial investments in infrastructure such as water, sewers or transportation facilities shall be scaled to avoid the need for public funding of the infrastructure.**

The intent of this policy is to preclude expansion of the industrial area beyond the identified boundaries and to ensure that new development (not previously constructed or vested) in the industrial area meets rural character standards. Site design, landscaping, design and construction of internal and access roads and building scale should reinforce the set boundaries and rural nature of the industrial area to further discourage future industrial expansion beyond the industrial boundary.

There are also existing, isolated industrial sites in the Rural Area which are recognized, but are not appropriate for new industrial uses. Further expansion of these isolated industrial uses is not encouraged, and therefore they are not zoned Industrial.

**R-414        Existing industrial uses in the Rural Area outside of Rural Towns or the designated industrial area adjacent to the Rural Neighborhood of Preston shall be zoned rural residential but may continue if they qualify as legal, nonconforming uses.**



# Equestrian Communities 2004

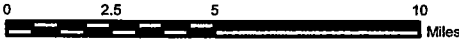
- Equestrian Communities
- Incorporated Areas
- Muckleshoot Indian Reservation
- Urban Growth Area Boundary

Source: King County Department of Development and Environmental Services

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The maps in the King County Comprehensive Plan and its technical appendices are produced with a computer geographic information system. They are reduced in size but available at a larger scale.

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# V. Resource Lands

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## Ensuring Conservation and Productive Use of Natural Resource Lands

King County's Natural Resource Lands are those with long-term commercial significance for farming, forestry, and minerals. Products from Natural Resource Lands play an important role in our economy by providing jobs and raw materials such as food, wood, and gravel, and by providing links to our cultural heritage. Responsible stewardship of resource lands produces multiple environmental benefits, such as:

- Stream and salmon protection;
- Clean air and water;
- Wildlife habitat;
- Flood prevention; and
- Groundwater recharge.

Historically, Natural Resource Lands have been poorly protected. For example, only about one-third of the farmland existing in 1945 remains today. The natural resource land base has diminished for many reasons, among them:

- Demand for more land for industrial, commercial, and residential structures;
- Lack of understanding of natural resource value;
- Inconsistent coordination between agencies;
- Poor operational practices in some cases; and
- Lack of an adequate means to compensate natural resource owners for the many nonmonetary values their lands provide.

Due to this history, King County has taken major steps to conserve and manage agricultural soils and activities, forestry and mining opportunities. Natural Resource Lands and the industries they support are conserved by encouraging development to occur primarily in the Urban Growth Area as envisioned by the GMA, which requires new development to be focused primarily in the Urban Growth Area. Under this plan, Natural Resource Lands, including designated Agricultural Production Districts, the Forest Production Districts and sites of long-term commercial significance for resource uses, will have minimal new residential and commercial development. New development that does occur will be designed to be compatible with active resource-based uses.

This chapter contains King County's strategy for conservation of these valuable Natural Resource Lands and for encouraging their productive and sustainable management. The strategy consists of policies to guide planning, incentives, education, regulation and purchase of development rights.

Forest, farm and mineral lands are not King County's only natural resources. Many other resource-based industries, such as the fisheries industry, are influenced by King County's land use and planning policies. Policies for the protection and enhancement of air, water, vegetation, fisheries, wildlife and other natural resources can be found in Chapter Four, Environment.

The Rural Forest Commission was established in 1997 to represent the diversity of forest interests in King County. The Commission reviews the development and implementation of strategies, programs, policies and regulations that benefit forestry and advises the county on ways to preserve rural forests and promote rural forestry.

**R-501      The Rural Forest Commission shall advise the King County Executive and Council on the development of innovative programs, policies and regulations that benefit forestry and that encourage the retention of the forest land base in King County.**

**King County shall continue to support the Rural Forest Commission with staff and other resources.**

In 1994, the Agriculture Commission was established as a forum for farmers to take an active role in land use decisions, policies and regulations affecting commercial agriculture. The commission solicits input from agricultural agency technical advisors and others with land use and technical expertise, as well as other affected groups such as the Dairy Federation, Native American Tribes, and project proponents.

- R-502      The Agricultural Commission shall advise the King County Executive and Council on agricultural issues and programs, including, but not limited to:**
- a. Existing and proposed legislation and regulations affecting commercial agriculture;**
  - b. Land use issues as they impact agriculture; and**
  - c. Ways to maintain, enhance and promote agriculture and agricultural products in the region.**

**King County shall continue to support the Agricultural Commission with staff and other resources.**

## **A. Resource Conservation Strategy**

In 1985, the King County Comprehensive Plan designated five Agricultural Production Districts and the Forest Production District. Subsequent planning efforts established minimum lot sizes and uses for these districts and their surrounding areas. These land use regulations are consistent with the requirements of the GMA to designate productive lands and to plan for adjacent and nearby land uses compatible with long-term commercial farming and forestry. Provisions for extraction of mineral resources are also included, consistent with the requirement of GMA.

GMA requires designation of agricultural and forest lands of long-term commercial significance. Agricultural lands of long-term commercial significance are designated as Agricultural Production Districts and forest lands of long-term commercial significance are designated as the Forest Production District as shown on the Agricultural and Forest Lands Map.

The GMA also requires designation of mineral resource lands that have long-term significance for the extraction of minerals. Such lands are shown as Designated Mineral Resource Sites on the Mineral Resources Map in this chapter. The role of the Forest Production District in the conservation of mineral resources is also explained below.

- R-503      King County shall promote and support forestry, agriculture, mining and other resource-based industries as a part of a diverse, regional and sustainable economy.**
- R-504      Well-managed forestry and agriculture practices are encouraged because of their multiple benefits, including natural resource protection.**
- R-505      Farm lands, forest lands and mineral resources shall be conserved for productive use through the use of Designated Agriculture and Forest Production Districts and Designated Mineral Resource Sites where the principal and preferred land uses will be commercial resource management activities, and by the designation of appropriate compatible uses on adjacent rural and urban lands.**
- R-506      Land uses, utilities and transportation facilities adjacent to Designated Agriculture and Forest Production Districts and Designated Mineral Resource Sites, shall be sited and designed to ensure compatibility with resource management.**



- R-507      King County should facilitate the siting of industries, infrastructure and services that serve and are served by resource-based industries in close proximity to designated Agriculture and Forest Production Districts and Designated Mineral Resource Sites when adverse impacts and incompatibilities can effectively be mitigated.**

Conflicts with surrounding land uses and environmental problems can arise even with the best of precautions. Resource-based industries need reasonable certainty that operations can continue if activities are performed in an environmentally sound manner.

Forest lands and farms provide valuable materials and employment as well as other important functions and values, such as community character, open space and wildlife habitat. These benefits are not without associated costs. Owners of Natural Resource Lands make substantial investments in managing their land. Taxes, fees, labor costs, costs associated with vandalism and market uncertainties can adversely affect the profitability of resource-based industries.

Two tax incentive programs exist to encourage continued farm and forest management both within and outside the Forest Production District and Agriculture Production Districts: the Washington State Timber and Forest Lands Program (chapter 84.33 RCW), and the Open Space Tax Program (chapter 84.34 RCW).

- R-508      King County should expand access to preferential tax programs to encourage landowners to continue practicing farming and forestry and to help ensure retention of the resource land base. Preferential tax programs for resource uses should be publicized and marketed. Preferential tax programs applied to resource lands are indicative that the investment expectations of the owners are for the lands to be productive as resource lands. The effectiveness of these programs should be monitored and the programs modified as needed.**
- R-509      King County shall employ a variety of innovative programs and incentives, tailored to the specific needs of each resource-based industry, to help maintain and enhance resource-based industries.**

Examples of such techniques could include implementation of a Transfer of Development Rights program, technical assistance and education for sustainable land management, expanded education for urban and suburban residents, expanded purchases of land or development rights, the purchase of scenic easements and other less-than-fee-ownership interests which conserve resource uses, establishment of buffers and setbacks for adjacent properties and relief from special levies and local improvement district fees.

When urban development occurs near Natural Resource Lands, conflicts can result. Examples of such conflicts are greater risk of forest fires, vandalism to logging, farm and mining equipment, destruction of young trees and increased mixing of heavy truck and residential traffic, which present safety problems. For these reasons, resource management in or near developed areas often is more costly.

- R-510      King County should develop and employ effective means to inform affected property owners about nearby resource management activities. This may include, but not be limited to:**
- a. Notice on title for properties within five hundred feet of designated agriculture, forestry, and mining lands;**
  - b. Signage for the Agricultural Production District, Forest Production District, Rural Forest Focus Areas; and**
  - c. Community meetings, and other public notification tools.**

Natural Resource Lands in King County include privately owned lands in unincorporated areas as well as lands owned and/or managed by city, state and federal agencies and tribes. In addition, a variety of state and federal regulations apply to some resource maintenance, harvesting and extraction operations.

Resource conservation efforts, therefore, require a regional perspective and intergovernmental cooperation.

- R-511**      **King County shall work cooperatively with cities, federally recognized tribes, other public agencies, private utilities, resource managers, land owners and citizens to conserve public and private Natural Resource Lands for long-term productivity and environmental protection in a consistent and predictable manner.**
- R-512**      **Designated Forest and Agricultural Production District lands shall not be annexed by cities.**
- R-513**      **King County should establish written agreements with agencies, tribes and other affected parties whose close coordination and collaboration are essential to effective implementation of resource management programs. Such agreements should serve to establish consensus and commitment to achieving specific resource management goals and to define the specific roles and responsibilities of each agency.**
- R-514**      **King County should avoid duplication of federal and state regulations that apply to resource-based industries. However, King County reserves the authority to address issues of local concern with regard to resource-based activities and operations.**

A resource management strategy that protects the environment is necessary to maintain the long-term productivity of the resource. Chapter Four, Environment, describes the value of using an integrated, ecosystem-based approach to natural resource and environmental planning and management. This approach, along with sound operational practices by resource-based industries may be able to prevent or minimize environmental impacts associated with resource harvesting and extraction.

- R-515**      **Resource-based industries should use practices that protect the long-term integrity of the natural and built environment, adjacent land uses, and cultural resources that maintain the long-term productivity of the resource base. Resource industry practices should result in maintenance of ecosystem health and habitat.**
- R-516**      **Habitat protection requirements should not fall disproportionately on land maintained in agriculture or forestry, and the costs of such protection shall not be disproportionately placed on the owners of such land.**
- R-517**      **King County should be a leader in resource management by demonstrating environmentally sound agriculture and forestry on county-owned land.**
- R-518**      **King County shall provide for integrated resource education through trail and sign systems linked with working farms, forests, and mines. Interpretation should:**
  - a. Provide historical perspective;**
  - b. Demonstrate current adaptive resource management practices (forestry, fisheries, wildlife, agriculture); and**
  - c. Explain economics of various resource uses.**

## **B. Forestry**

King County forestlands provide local, regional and national benefits that are basic to our quality of life. In addition to supplying a variety of wood and other products, forests emit oxygen, supply pure water, control flooding and soil erosion, enhance groundwater recharge, provide habitat for innumerable plant and animal species and offer scenic vistas and recreational opportunities. King County's forests provide employment in wood, paper, recreation, tourism and fishing industries. In sum, properly managed forests are fundamental to a healthy, diverse economy and environment.

The growth in human population has resulted in the loss of forestlands through conversion to nonforest uses. Increasing demands are being placed upon the remaining forest land base to provide goods, recreational opportunities and ecological functions. To address these challenges, forest managers are embracing more broad-based management methods and strategies that encompass ecosystems, landscapes and watersheds, while continually incorporating new scientific information to improve these approaches. Their efforts, together with the collective foresight and dedication of landowners, interest groups, tribes, citizens and agencies, are needed to ensure that King County's forests continue to contribute to a sustainable way of life for present and future generations.

The first step to maintain and enhance the commercial forest industry is to protect the forest land base. Second, an ecosystem approach to forest management that provides for long-term ecosystem health and productivity and addresses cumulative impacts on nontimber resources should be explored. Third, commercial forestry must be supported and encouraged by minimizing land use conflicts and offering incentives. Finally, forestland conversions that do occur must be managed to minimize environmental degradation.

## **1. Protecting Forest Lands**

The purpose of the Forest Production District is to prevent intrusion of incompatible uses, manage adjacent land uses to minimize land use conflicts and prevent or discourage conversion to nonforestry-based uses. A comparison of the area of forestland converted since 1987 inside the Forest Production District with the area converted outside the district indicates that landowners inside the Forest Production District are committed to long-term forestry. It also indicates that designation and zoning of commercial forest lands help to discourage subdivision and conversion.

Sixty percent of the land area in King County is within the designated Forest Production District (FPD). The FPD comprises 1,300 square miles (825,000 acres) of forestland in east King County.

About 70% of the FPD is in public ownership: parts of the Alpine Lakes Wilderness Area, Mt. Baker-Snoqualmie National Forest, state and county parks, Washington State Department of Natural Resources, and watersheds for the cities of Seattle and Tacoma.

Commercial forestry is conducted on approximately 250,000 acres in private ownership and on another 277,000 acres of state and federal forestlands. Most of this land is held in large contiguous blocks. At this larger scale, it is easier to manage for multiple purposes such as habitat and long-term forest health.

**R-519      The Forest Production District is comprised of and shall remain in large blocks of contiguous forest lands where the primary land use is commercial forestry. Other resource industry uses, such as mining and agriculture, should be permitted within the Forest Production District when managed to be compatible with forestry.**

**R-520      The Forest Production District is a long-term designation. Lands may be removed from the Forest Production District only through a subarea planning process, and only to recognize areas with historical retail commercial uses.**

The policies in this section allow for very limited residential uses in the designated Forest Production District, consistent with the objective of continuing forestry as the primary land use. For example, residences may be appropriate to permit forest managers to live on their land. King County zoning and subdivision regulations establish a large parcel size to promote efficient forest operations and to reduce incompatible residential development. Although the zoning calls for an 80-acre minimum lot size, many smaller lots were created prior to application of the zoning. Proliferation of residences in the FPD makes commercial forestry less viable.

- R-521      King County is committed to maintaining working forestland in the FPD, and shall continue to work with landowners and other stakeholders to promote forestry, reduce uses and activities that conflict with resource uses and recognize forestland values.**
- R-522      To reduce conflicts with resource uses, a forest management plan shall be required as a condition of development for any residential uses. Accessory dwelling units shall not be allowed in the FPD.**
- R-523      Structures within the Forest Production District should be sited to maintain the productivity of the district. Site plan requirements should limit impervious surface, provide for fire control, protect domestic water supply and prevent conflicts with forest management.**

King County can further protect commercial forestlands and prevent conflicts by working with other public agencies and service providers to consolidate lands and to locate infrastructure facilities to prevent or minimize intrusions. Such actions can also improve the owner's capacity to protect fish and wildlife habitat and other natural resources.

- R-524      In consultation with federally-recognized tribes and other affected agencies and landowners, King County should support land trades that result in consolidated forest ownership and work with forest managers to identify and develop other incentives for continued forestry.**
- R-525      King County opposes the establishment or expansion of special purpose taxing districts and local improvement districts in the Forest Production District, and shall not grant new or expanded franchises for utilities in the Forest Production District, unless demonstrated that they directly benefit forestry or are necessary for transmission of power or water.**

Forest lands have tremendous recreational and aesthetic value. For example, Forest Production District lands are included within the Mountains-to-Sound Greenway along the I-90 corridor. Opportunities for hiking and other forms of outdoor recreation exist within the working forests that are part of the Greenway. (This concept is described in more detail in Chapter Four, Environment, and Chapter Five, Parks, Open\_Space and Cultural Resources.) Access to Natural Resource Lands must be carefully managed, however, to prevent conflict with natural resource goals. For example, open gate policies allowing public access may be incompatible with fish and wildlife protection goals and sometimes may interfere with forestry operations by allowing such activities as garbage dumping, vandalism and timber theft.

- R-526      Public and private forest owners are encouraged to provide for recreational, educational and cultural uses when compatible with forest protection.**

Recreational and institutional developments, such as conference centers, ski areas and associated hotels, allow more people to enjoy the aesthetic benefits of forest lands. Such facilities are acceptable if located in areas of existing development, such as Snoqualmie Pass, and their operation and use are restricted adequately to minimize conflict with resource lands. Major recreational or institutional development sites can adversely affect the Forest Production District because they reduce the forest land base and conflict with other resource management goals.

- R-527      No master planned resorts shall be permitted in the Forest Production District. New or expansion of existing recreational or institutional uses in the Forest Production District may be permitted if compatible with long-term forestry, interests of federally-recognized tribes and other resource management goals.**

Adverse environmental impacts associated with forest practices have the potential to heal over time, whereas those associated with development are usually irreversible. For this reason, forest lands being converted to nonforest uses must be held to higher land clearing and grading standards than those that apply under the Forest Practices Act must be used, for example, to protect surface and groundwater quality and quantity, control stormwater runoff and minimize damage to fish and wildlife habitat.

When applying for a forest practice permit, a landowner must state whether the land is to be retained in forest use or converted to a nonforest use. The Forest Practices Act, as amended in 1997, requires local jurisdictions to impose a six-year development moratorium on any properties for which the forest practice application did not state the intention to convert to a nonforest use, unless the application contains a conversion option harvest plan approved by the local jurisdiction.

**R-528      King County shall impose a six-year development moratorium for landowners who do not state their intent to convert at the time of Forest Practice Application or who do not harvest the site according to a King County approved Conversion Option Harvest Plan. King County shall develop a list of allowable exceptions from the development moratorium and shall ensure that potential buyers of properties subject to the moratorium are alerted to the moratorium.**

Landowners choosing to convert their land to nonforest uses also must state their intent on the Forest Practice Application and, as provided in the Forest Practices Act, must conduct their forest practices according to applicable local government regulations. If a landowner intends to convert their land to a nonforest use, they must submit a Forest Practices Application to King County and meet all King County standards.

**R-529      King County should continue to work with all affected parties and the Washington Department of Natural Resources to improve the enforcement of forest practice regulations in the urban and rural areas, and to ensure that landowners comply with county regulations when they are converting portions of the site to a nonforest use. Harvesting of forest lands for the purpose of converting to nonforestry uses shall meet all applicable county standards for clearing and sensitive areas management.**

## **2.      Promoting Forest Management**

King County has worked with state, federal, and private landowners on multiparty resource plans, such as the Middle Fork Snoqualmie Plan, the plan for Rattlesnake Ridge, and numerous watershed planning efforts. There will continue to be opportunities for interagency cross-ownership cooperation, which will result in improved resource management and conservation.

**R-530      Working with public and private forest land managers, King County shall encourage long-term forest productivity and the protection of land and water resources by participating in collaborative, multiownership planning efforts.**

**R-531      King County promotes forest management that achieves long-term forest health, protection of watersheds, sensitive areas and habitat to support fish and wildlife populations, protection of threatened and endangered species, and preservation and economic viability of working forests.**

**R-532      King County should work with the King County Rural Forest Commission to conduct a demonstration project for tree removal to reduce fire hazard in the Rural Area. The demonstration project should allow for a community based project in a carefully selected area using best management practices.**

**R-533      King County shall encourage the development of private/public partnerships that provide incentive for landowners to practice innovative, fish-friendly forestry and that can help ensure retention of the forest resource land base in perpetuity.**

An example of such a partnership is the Mountains-to-Sound Greenway Biosolids Forestry Program, which includes King County, Washington State Department of Natural Resources, the Greenway Trust, the University of Washington and the Weyerhaeuser Company. One of the elements of this program involves the acquisition of forestlands that are vulnerable to residential and commercial development. Lands are acquired by a combination of county funds and federal Forest Legacy funds and then transferred to the State DNR for management. By deed, these lands stay in forest resource use in perpetuity and are managed according to the state's Habitat Conservation Plan. Seventy-five percent of all revenues generated are returned to King County. The lands that have been acquired help to form the block of public ownership along I-90, providing wildlife corridors, opportunities for trails and recreation, and the water quality protection provided by forest cover.

In addition to landscape-level planning and analysis, resource managers should identify specific areas in their forest ownership that are degraded or negatively impacting aquatic resources. Examples of such areas are logging roads or gravel mines no longer needed and scheduled to be abandoned or riparian zones that are not sufficiently vegetated. Organic soil amendments, when properly used, can greatly enhance vegetative growth and restore productivity to these sites, thus protecting fish and other aquatic resources. The use of recycled organic wastes generated in King County closes the recycling "loop" and helps us sustain the productivity of our resource lands.

**R-534      King County encourages the use of recycled, organic-based soil amendments and fertilizers in forest ecosystems, which can reduce erosion and sedimentation into streams, increase water-holding capacity of soils, stimulate the growth of trees and other vegetation and enhance fish and wildlife habitat. King County shall work with the general public and private and public forestland owners to encourage the selective and appropriate use of these materials for ecosystem enhancement and restoration.**

One of the most successful efforts already underway is the use of the county's biosolids to fertilize public and private forests and the use of biosolids compost to help restore old logging roads in the Mountains-to-Sound Greenway in eastern King County. Volunteers from many local youth and environmental groups, including Earthcorp, are involved in this program, which involves removal of the logging roads, restoration of the natural slope of the land, and the use of compost to speed vegetation growth.

## **C.      Agriculture**

Land suitable for farming is an irreplaceable natural resource. Since 1959, almost 60 percent of King County's prime agricultural land has been lost to urban and suburban development. Of 100,000 acres available for farming 40 years ago, today only 42,000 acres remain in agriculture.

Fortunately, the amount of agricultural land has stabilized due, in large part, to a variety of county policies and initiatives to conserve these commercially viable resource-based lands.

Agricultural lands and farming provide many benefits to the citizens of King County including scenic open space, a connection to our cultural heritage, fresh local foods and a diverse economy. In 2002, farmers in King County produced over \$94 million in agricultural sales. Commercial agricultural production, however, has declined by 30 percent in gross sales since 1978.

This section focuses on the county's efforts to maintain and enhance commercial agriculture for the value of local produce, dairy products, keeping livestock and for scenic and historic values. To meet the GMA requirement to maintain and enhance agriculture, a variety of methods and programs continue to be necessary. The policies call for King County to:

- Protect productive farmland by designation and zoning
- Limit development to uses that are necessary to support commercial agriculture;
- Prevent or minimize land use conflicts between farming operations and adjacent land uses;
- Allow necessary infrastructure (markets, water, affordable housing, supply stores, technical services, tax incentives) that supports commercial agriculture; and
- Encourage farming practices that conserve soils and protect water quality, fisheries and wildlife.

## 1. Protecting Agricultural Lands

In 1979, voters approved a \$50 million ballot measure to protect farmland threatened by development. The Farmland Preservation Program (FPP) became the first voter-approved measure in the nation to protect farmland in a metropolitan area. By purchasing the development rights, the FPP keeps farmland open and available through covenants that restrict development and limit the properties' uses exclusively for agriculture and open space. The covenants "run with the land" in perpetuity so the land is protected regardless of ownership. Under the FPP, the county owns the development rights; however, the lands remain in the private ownership of over 200 property owners. The county cannot sell or remove its interest in FPP lands with the exception of conveying public road or utility easements.

In 1995, the county approved an additional \$3 million to the purchase of additional development rights under the Farmland Preservation Program. In October 1999, the county formally recognized the 20th anniversary of the Farmland Preservation Program and its success to date in preserving over 12,800 acres of farmland for the generations of today and tomorrow.

**R-535      King County shall continue to implement the objectives of the Farmland Preservation Program. Protection of property purchased under the FPP shall be a high priority when balancing conflicting interests such as locating transportation, active recreation or utility facilities.**

Agriculture is most productive in agricultural communities where neighbors support agriculture, where parcels are large enough for commercial agriculture and where labor, supplies and markets for farm products are available. King County's farm soils and most profitable farms are usually found in contiguous blocks with few nonagricultural uses. In 1985, King County established Agricultural Production Districts (APDs) with large lot zoning and specifying agriculture as the preferred use in these areas.

The Agricultural Production Districts, shown on the Agriculture and Forest Lands Map in this chapter, present the least number of land use conflicts for agriculture, contain agricultural support activities and provide the best environment for farming in King County. The five Agricultural Production Districts are: the Sammamish Valley, the Snoqualmie Valley, the Lower Green River Valley, the Upper Green River Valley and the Enumclaw Plateau. Most of the farmlands preserved under the FPP are found in these APDs.

**R-536      Agricultural Production Districts are blocks of contiguous farmlands where agriculture is supported through the protection of agricultural soils and related support services and activities. Roads and natural features are appropriate boundaries for Agricultural Production Districts to reduce the possibility of conflicts with adjacent land uses.**

**R-537      King County should purchase additional development rights to farmland in the Agricultural Production Districts as funding becomes available.**

Livestock, dairy and large-scale commercial row-crop operations require large parcels of land to allow for production which is profitable and sustainable. Generally, 35 acres is needed for full-time wholesale commercial production of such products. Specialty agricultural products, products that are direct-marketed and part-time farming enterprises generally need less acreage to be profitable.

- R-538** All parcels within the boundaries of an APD should be zoned Agricultural, either A-10 or A-35. If small parcels in the APD are not zoned for Agriculture, permitted nonresidential uses must not conflict with agricultural uses in the APD.
- R-539** Lands within Agricultural Production Districts should remain in parcels large enough for commercial agriculture. A residential density of one home per 35 acres shall be applied where the predominant lot size is 35 acres or larger, and a residential density of one home per 10 acres shall be applied where the predominant lot size is less than 35 acres.
- R-540** Agriculture should be the principal land use in the Agricultural Production Districts. Permanent new construction within districts shall be sited to prevent conflicts with commercial farming or other agricultural uses, and nonagricultural uses shall be limited. New development shall not disrupt agriculture operations and shall have a scale compatible with an active farming district.
- R-541** On-site housing for farm employees shall be allowed where this can be accomplished without unnecessarily removing land from agricultural use or conflicting with other public interests. King County should develop guidelines to allow on-site housing for farm employees, including guidelines that account for the restrictive covenants on properties in the Farmland Preservation Program.

Some of the highest quality salmon habitat in King County is found within Agricultural Production Districts (APDs). Additional protection or restoration of critical habitat within the APDs is likely to be recommended by Water Resources Inventory Area Salmon Conservation Plans. Protection and enhancement of existing salmon habitat is a resource based land use that should be included in all farm management plans. Specific habitat protection rules should not jeopardize the agricultural productivity within the APD. Aquatic habitat restoration or wetland mitigation projects should be limited in scale to achieve the objectives of the project while limiting fragmentation of farms and aquatic habitat. Many habitat restoration projects can be designed in a manner that provides benefits to both fish habitat and the agricultural landowner.

- R-542** Aquatic habitat restoration projects or floodplain restoration projects are allowed on agricultural lands that are unsuitable for direct agricultural production purposes, such as portions of property that have not historically been farmed due to soil conditions or frequent flooding, and which cannot be returned to productivity by drainage maintenance, or where the proposed project would result in a net benefit to agricultural productivity. Agriculture must remain the predominant use in the APDs and these projects shall not reduce the ability to farm in the area. Such projects may only be allowed on agricultural lands when there are no other suitable lands available and the project is supported by landowners who would be impacted by the project and when:
- a. The project is included in an approved Water Resources Inventory Area Plan, Farm Management Plan, Flood Hazard Reduction Plan or other functional plan; or
  - b. The project would improve agricultural productivity within the APD.
- R-543** Maintaining the viability of farmlands is a high priority for King County. Within the Agricultural Production Districts, measures to protect threatened or endangered species shall be tailored to ensure working farms can continue to operate.

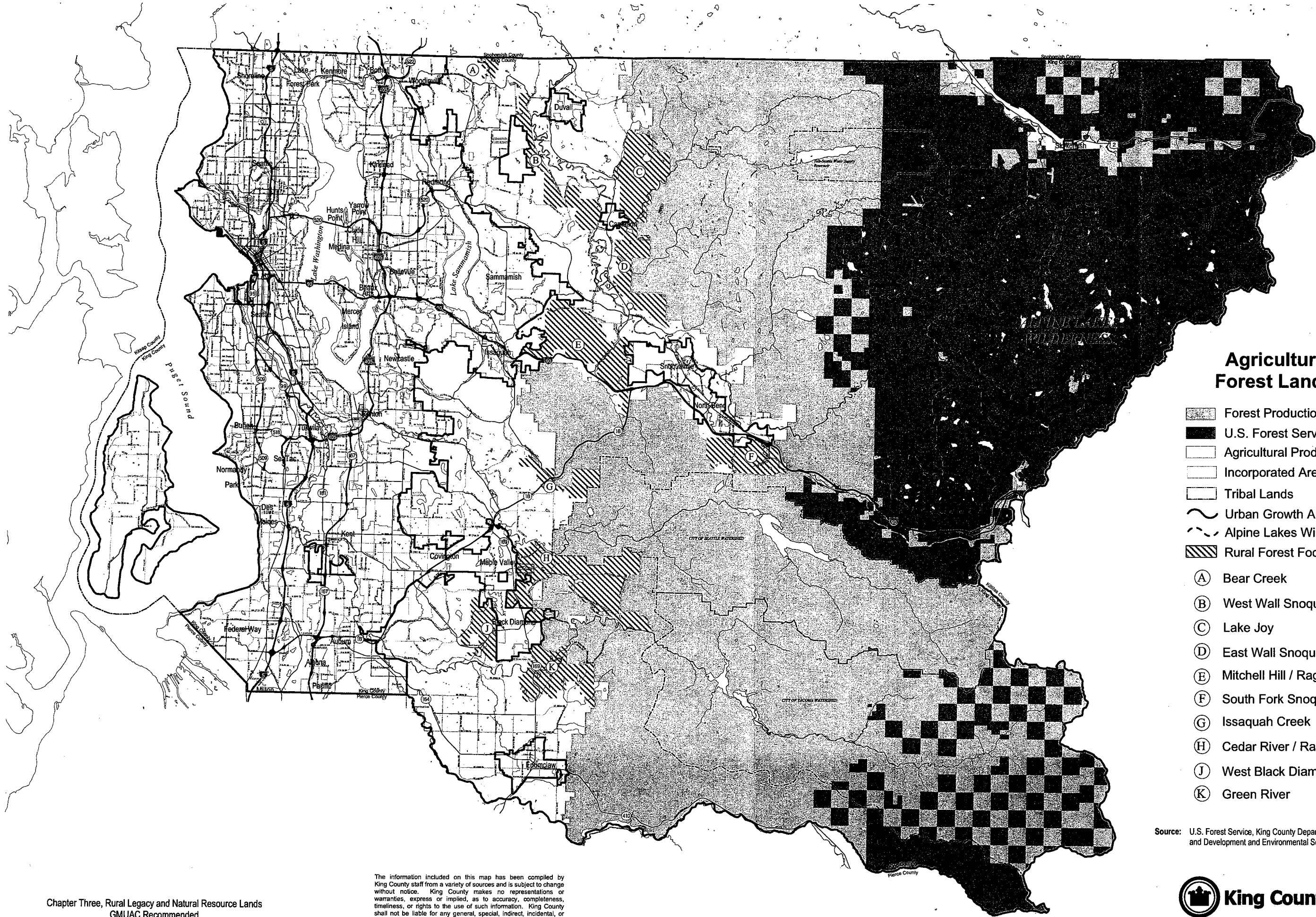
Two Agricultural Production Districts (APD) in or near urban areas, the Lower Green River Valley and Sammamish Valley, were designated in the 1985 Comprehensive Plan, and those designations have been retained. The development rights from many, but not all, of the parcels in these two districts have



been purchased through the Farmlands Preservation Program. The Lower Green APD is completely surrounded by urban designated land and as such, functions as both prime agriculture land and urban separator.

- R-544      King County commits to preserve Agricultural Production District parcels in or near the Urban Growth Area because of their high production capabilities, their proximity to markets, and their value as open space.**
- R-545      The Lower Green River Agricultural Production District is a regionally designated resource that is to remain in unincorporated King County. The Lower Green River Agricultural Production District functions as an urban separator between the cities of Kent and Auburn. King County may contract with other jurisdictions to provide some local services to this area as appropriate.**

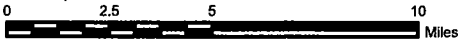
Parks and farms are not necessarily good neighbors, since park users can trespass and damage crops, animals and farm equipment. Recreation near and within districts can be planned to prevent trespass. For example, a park located across a river or ravine from an Agricultural Production District (APD) or a farm would have a pleasant view of farmland without encouraging trespass.



# Agricultural and Forest Lands 2004

- Forest Production District
- U.S. Forest Service Lands
- Agricultural Production District
- Incorporated Areas
- Tribal Lands
- Urban Growth Area Boundary
- Alpine Lakes Wilderness Boundary
- Rural Forest Focus Areas
- (A) Bear Creek
- (B) West Wall Snoqualmie
- (C) Lake Joy
- (D) East Wall Snoqualmie
- (E) Mitchell Hill / Raging River
- (F) South Fork Snoqualmie
- (G) Issaquah Creek
- (H) Cedar River / Ravensdale
- (J) West Black Diamond
- (K) Green River

Source: U.S. Forest Service, King County Departments of Assessments, Natural Resources and Parks, and Development and Environmental Services



July 2004

Chapter Three, Rural Legacy and Natural Resource Lands  
GMUAC Recommended

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The maps in the King County Comprehensive Plan and its technical appendices are produced with a computer geographic information system. They are reduced in size but available at a larger scale.

- R-546      Active recreational facilities should not be located within Agricultural Production Districts. When new parks or trails are planned for areas within or adjacent to Agricultural Production Districts, King County should work with farmers to minimize impacts to farmland and agricultural operations.**

Public road and utility projects within and through Agricultural Production Districts must be designed to prevent disruption to agriculture. For example, roads shall have adequate shoulders and signs to protect farm equipment and alert faster vehicles to the presence of farming activity. Therefore, road and utility district capital facilities and plans, including water, waste water and drainage, need to ensure that services are consistent with preservation of long-term agriculture. (Chapter Eight, Facilities and Services, contains policies requiring special district plans to be consistent with land use plans.)

- R-547      Public services and utilities within and adjacent to Agricultural Production Districts (APDs) shall be designed to minimize significant adverse impacts on agriculture and to maintain total farmland acreage and the area's historic agricultural character:**
- a. Whenever feasible, water lines, sewer lines and other public facilities should avoid crossing Agricultural Production Districts. Installation should be timed to minimize negative impacts on seasonal agricultural practices; and**
  - b. Road projects planned for the Agricultural Production Districts including additional roads or the widening of roads should be limited to those needed for safety and which benefit agricultural uses. Where possible, arterials should be routed around the APDs. Roads that cross APDs should be aligned, designed and maintained to minimize negative impacts on agriculture, and to support farm traffic; and**
  - c. In cases when public or privately owned facilities meeting regional needs must intrude into Agricultural Production Districts, they should be built and located to minimize disruption of agricultural activity.**

- R-548      Lands can be removed from the Agricultural Production Districts only when it can be demonstrated that:**
- a. Removal of the land will not diminish the productivity of prime agricultural soils or the effectiveness of farming within the local APD boundaries; and**
  - b. The land is determined to be no longer suitable for agricultural purposes.**

**In addition to meeting these two tests, removal of the land from the APD may only occur if it is mitigated through the addition of agricultural land abutting the same APD of equal acreage and of equal or greater soils and agriculture value.**

## **2.      Sustaining Agriculture and Farming**

King County has made a significant investment in preserving farmland for agriculture and open space uses. The next step is to help existing and future farmers maintain and operate their farms and inform consumers and businesses, such as restaurants, of the benefits of locally grown foods. In order to further maintain and enhance commercial farming on small farmland parcels, farmers and prospective farmers must have access to information on marketing and production strategies for small acreages, the potential for specialty crops and sustainable farming techniques.

- R-549      King County shall work with and provide support to the work of Washington State University Cooperative Extension for technical and marketing assistance for small-scale commercial farmers.**
- R-550      King County shall continue to support innovative initiatives, such as the Puget Sound Fresh and Farm Link Programs, to promote and enhance agriculture in King County.**

**R-551        The county should develop specific incentives to encourage agricultural activities in the remaining prime farmlands located outside the Agricultural Production District. These incentives could include tax credits, expedited permit review, reduced permit fees, permit exemptions for activities complying with best management practices or similar programs.**

**R-552        King County shall develop an Agricultural Building Permit with an expedited review process and reduced fees for structures necessary for farm operations.**

King County recognizes the importance of adding value to and direct sales of agricultural products as a way to keep agriculture viable in an urban landscape. King County's agriculture program works with farmers to encourage them to add value to their products by processing, packaging, and selling them directly to the consumer.

**R-553        Agricultural processing, packing and direct sales are considered agricultural activities and should be allowed at a size and scale appropriate to the zone in which they are operating. King County shall work with local and state health departments to develop regulations supporting these activities.**

Agricultural practices modify the natural environment in order to produce food or fiber or maintain livestock for human use. Ideally, practices that maintain the productivity of the lands also protect environmental quality. Farmers, technical advisors and environmental regulators must work together to understand the relationships between production practices, environmental protection and profitability. These practices, referred to as best management practices, are designed to prevent erosion, retain riparian vegetation, avoid stream bank collapse, properly dispose of animal wastes, safely use and dispose of pesticides and prevent excessive surface water runoff.

**R-554        King County shall provide incentives, educational programs and other methods to encourage agricultural practices which maintain water quality, protect public health, protect fish and wildlife habitat, protect historic resources and prevent erosion of valuable agricultural soils while maintaining the functions needed for agricultural production.**

## **D.        Mineral Resources**

King County contains many valuable mineral resources, including deposits of coal, sand, rock, gravel, silica, peat, clay, metallic ores and potentially recoverable gas and oil. Mining and processing these deposits is an important part of King County's economy, currently providing hundreds of jobs and producing materials used locally, regionally and nationally. Mining also has historic significance, in that it provided the impetus for past development in many parts of King County, including Black Diamond and the Newcastle area.

King County is required by the State Growth Management Act to designate and conserve mineral lands. In doing so the county must assure that land uses adjacent to mineral lands do not interfere with the continued use of mineral lands in their accustomed manner and in accordance with best management practices. The policies in this section explain the steps taken to designate and conserve mineral resource lands and provide direction on the comprehensive review needed before additional sites are designated for mineral resource extraction.

Four main steps are necessary to maintain and enhance commercial mineral resource industries. First, mineral resource sites should be conserved through designation and zoning. Second, land use conflicts between mining, processing and related operations and adjacent land uses should be prevented or minimized. Third, operational practices should protect environmental quality, fisheries and wildlife, in balance with the needs of the industry. Finally, mining areas need to be reclaimed in a timely and appropriate manner.

The Mineral Resources Map identifies four different types of Mineral Resource Sites. The sites were identified in the 1994 King County Comprehensive Plan or in subsequent annual updates. Following the Mineral Resources Map is a spreadsheet that contains information on each Mineral Resource Site parcel.

The Designated Mineral Resources Sites on the Mineral Resources Map satisfy King County's responsibility to designate and conserve mineral resources consistent with requirements of the GMA. All Designated Mineral Resources Sites have Mineral zoning. The criteria used in the 1994 King County Comprehensive Plan called for designation of properties that at the time were either zoned outright for mining or those operating under an approved Unclassified Use Permit. In addition to the designated Mineral Resources Sites, the Forest Production District (FPD) and Forest (F) zone preserves the opportunity for mineral extraction. Mining is a permitted or conditional use in the F zone. Because forestry does not preclude future mineral extraction, King County considers the FPD as part of its strategy to conserve mineral resources.

The Mineral Resources Map also shows Potential Mineral Resource Sites. These are sites where King County expects some future surface mining to occur or where the owner or operator indicates an interest in future mining. Most of the Potential Mineral Resources Sites shown on the map contain sand and/or gravel, however, a few contain other mineral resources such as quarry rock and coal. Because of the geology of King County, most valuable metallic mineral resources are located in the Forest Production District, and are therefore already protected from urban development. Identification of Potential Mineral Resources Sites satisfies the GMA requirements to not knowingly preclude opportunities for future mining and to inform nearby property owners of the potential for future mining use of these areas in order to prevent or minimize conflicts.

The Mineral Resources Map also shows Non-Conforming Mineral Resources Sites. These are sites on which some mining operations predated King County zoning regulations without appropriate zoning or other land use approval. Mining for these sites has not been authorized through a Land Use Map or zoning designation. These sites are shown for informational purposes only. Mining can occur on an identified site only if mining has been approved as a nonconforming use by the Department of Development and Environmental Services, and mining activities have received all other necessary permit approvals. Because the sites have not undergone formal review to be designated on the Land Use Map or zoned for mining, the sites do not have long-term commercial significance. However, they can continue to serve mineral supply needs.

The Mineral Resources Map also shows Owner Identified Potential Coal Mining Sites that contain subsurface coal resources. These sites could be mined by either underground or surface mining techniques. Because of uncertainties involving the economics of energy and related market conditions, it is not always possible to determine the timing or likelihood of coal resources extraction in potential coal mining areas. Underground and surface coal mining is subject to permitting and enforcement by the Federal Government. King County regulates land use decisions governing surface facilities. Because of the difficulty in precisely locating these facilities prior to an actual proposal, King County determined to not apply Potential M zoning to owner-identified coal resources sites.

- R-555      King County shall identify existing and potential mining sites on the Mineral Resources Map in order to conserve mineral resources, promote compatibility with nearby land uses, protect environmental quality, maintain and enhance mineral resource industries and serve to notify property owners of the potential for mining activities. The county shall identify:**
- a. Sites with existing Mineral zoning as Designated Mineral Resource Sites;**
  - b. Sites where the landowner or operator has indicated an interest in mining, sites that as of the date of adoption of the 1994 Comprehensive Plan had potential Quarrying/Mining zoning, or sites that the County determines might support future mining as Potential Mineral Resource Sites;**
  - c. Sites where mining operations predate zoning regulations but without zoning or other land use approvals as Non-Conforming Mineral Resource Sites; and**

**d. Owner-Identified Potential Sub-Surface Coal Sites.**

**R-556** King County shall designate as mining on the Comprehensive Plan Land Use Map those sites that had Potential Mineral (M) zoning prior to the date of adoption of the 1994 Comprehensive Plan and those sites that had Mineral zoning as of the date of the adoption of the King County Comprehensive Plan 2000 Update.

**A mining designation on the Land Use Map shall not create a presumption that Mineral zoning will be approved for sites with Potential Mineral zoning. Potential Mineral zoning shall not be applied to additional sites.**

Mining is an intense operation that may continue for many years. Mining operations can significantly change the land being mined and have impacts on the environment and on nearby properties. King County requires comprehensive review, including environmental analysis, prior to approving a Land Use Map and zoning change. Site specific environmental review will also be required for a grading permit or any other permit that is necessary for a mining operation. Therefore, a comprehensive site-specific study is required prior to any such approval.

**R-557** King County may designate additional sites on the Comprehensive Plan Land Use Map as Mining only following a site-specific rezone to Mineral zoning. Upon approval of a rezone to Mineral zoning, the Comprehensive Plan Land Use Map shall be amended to designate the site as mining during the next comprehensive plan amendment cycle. King County should approve applications for site-specific rezones to Mineral zoning and applications for permits that would authorize mineral extraction and processing only following site-specific environmental study, early and continuous public notice and comment opportunities, when:

- a. The proposed site contains rock, sand, gravel, coal, oil, gas or other mineral resources;**
- b. The proposed site is large enough to confine or mitigate all operational impacts;**
- c. The proposal will allow operation with limited conflicts with adjacent land uses when mitigating measures are applied;**
- d. The proposal has been evaluated under the State Environmental Policy Act so that the county may approve, condition or deny applications consistent with the county's substantive SEPA authority, and in order to mitigate significant adverse environmental impacts.**
- e. Roads or rail facilities serving or proposed to serve the site can safely and adequately handle transport of products and are in close proximity to the site.**

If King County denies an application for a site-specific rezone it should remove the mining land use designation and the associated Potential Mineral zoning for the site. If the county denies a permit that would authorize mineral extraction and/or processing on a Designated Mineral Resources Site, the county should consider new information generated during the permit review process to determine whether the site is not properly designated as mineral resource land of long-term commercial significance, the designation for the site on the Mineral Resources Map should be changed from Designated Mineral Resources Site to Potential surface Mineral Resource Site. In addition, the mining land use designation and the Mineral zoning classification for the site should be amended to be compatible with the surrounding properties.

**R-558** King County should remove the Mining land use designation on the Comprehensive Plan Land Use Map and associated Potential Mineral zone or Mineral zoning for any sites that have been denied a rezone to Mineral.

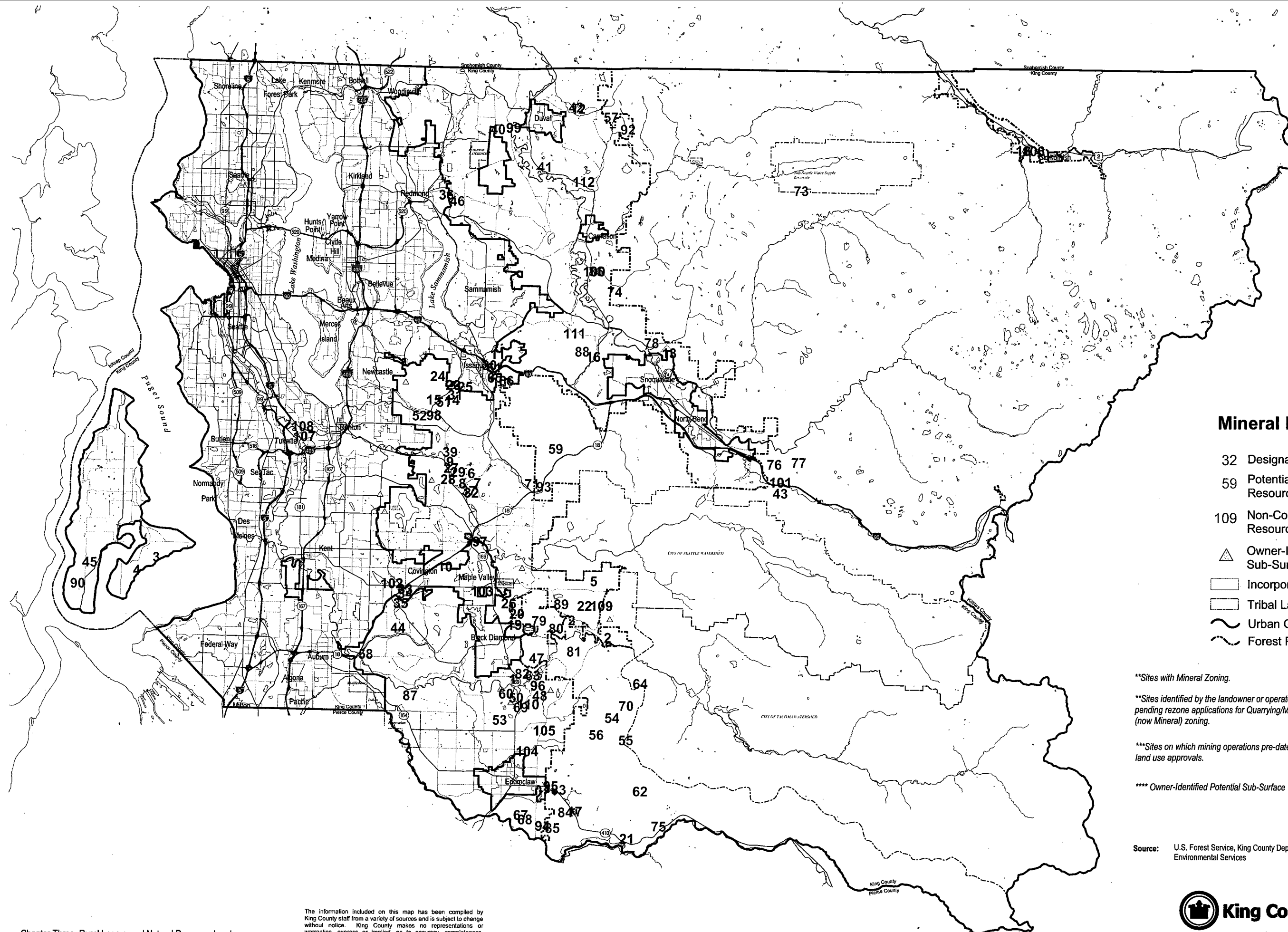
**If a grading or other permit necessary for the extraction of mineral resources is denied on a Designated Mineral Resource Site, the county shall evaluate whether such mineral resource designation is appropriate. The re-evaluation process may**

occur during the annual comprehensive plan amendment cycle and information produced during the permit review process shall be used to evaluate the appropriateness of changing the existing designation. If the county determines that the site should not be designated as mineral resource land of long-term commercial significance as defined in the Growth Management Act, the site shall be redesignated to a Potential Surface Mineral Resource Site on the Mineral Resources Map and to a land use designation and zoning classification compatible with the surrounding properties.

- R-559      King County may update the Mineral Resources Map to identify additional Potential Mineral Resource Sites only during the four-year comprehensive plan amendment cycle.
- R-560      The preferred adjacent land uses to sites designated as Mining on the Land Use Map are mining, industrial, open space or forestry uses. Sites for newly proposed Mineral zones shall not be adjacent to or within Agricultural Production Districts. Agricultural lands and operations should be protected from significant impacts associated with nearby mine operations.
- R-561      Mining activities are permitted within the Forest Production District, consistent with Policy R-519. However, a conditional use permit shall be required for mining activities in the Forest Production District located within one-quarter mile of established residences or for proposals seeking to use local access streets where abutting lots are developed for residential use.
- R-562      In order to comprehensively assess the environmental impacts associated with a zoning change, conditional use or operating approval for a mining proposal, the range of environmental impacts, including short-term and long-term effects arising or existing over the lifetime of the proposal, shall be assessed at the earliest possible stage. This should include the potential for future proposals for structures and operations related to mining, such as asphalt and concrete batch plants.
- R-563      King County should prevent or minimize conflicts with mining when planning land uses adjacent to Designated and Potential Mineral Resource Sites. Subarea plans may indicate areas where mining is an inappropriate land use. Designated and Potential Mineral Resource Sites and nonconforming sites should be shown on Mineral Resources Map and subarea plan maps in order to notify nearby property owners and residents of existing and prospective mining activities.
- R-564      The periodic review process for mineral extractive and processing operations shall include sufficient public notice and comment opportunities. The purpose of the periodic review process is to provide opportunities for public review and comment on the mineral resource facility's fulfillment of state and county regulations and implementation of industry-standard best management practices, and for King County to modify, add or remove conditions to address new circumstances and/or unanticipated project-generated impacts. The periodic review process is not intended to re-examine the appropriateness of the mineral resource use, or to consider expansion of operations beyond the scope of existing permitted operations since that review would be accomplished through the county's permitting process. The periodic review is intended to be a part of King County's ongoing enforcement and inspections of mineral resource sites, and not to be a part of the county's permitting process.

- R-565**      **Conditions and mitigations for significant adverse environmental impacts associated with mining operations and their associated structures or facilities should be required, especially in the following areas:**
- a. Air quality;**
  - b. Environmentally sensitive and critical areas, such as surface and groundwater quality and quantity, wetlands, fisheries and wildlife habitats, and aquatic habitats;**
  - c. Noise levels;**
  - d. Vibration;**
  - e. Light and glare;**
  - f. Vehicular access and safety;**
  - g. Land and shoreline uses;**
  - h. Traffic impacts;**
  - i. Visual impacts;**
  - j. Cultural and historic features and resources;**
  - k. Site security; and**
  - l. Others unique to specific sites and proposals**
- R-566**      **King County should work with the state and federal governments to ensure that proposals for underground mining, oil and gas extraction, and surface coal mining are reviewed with consideration of local land use and environmental requirements.**
- R-567**      **King County should work with the State Department of Natural Resources to ensure that mining areas are reclaimed in a timely and appropriate manner. Reclamation of mining sites in the Forest Production District should return the land to forestry. Where mining is completed in phases, reclamation also should be completed in phases as the resource is depleted. When reclamation of mining sites located outside of the Forest Production District is completed, the site should be considered for redesignation to a land use designation and zoning classification compatible with the surrounding properties.**
- R-568**      **King County shall encourage the removal of existing stockpiles of previously mined material in order to promote and achieve reclamation of land to its highest and best use.**





## Mineral Resources 2004

- 32 Designated Mineral Resource Sites\*
- 59 Potential Surface Mineral Resource Sites\*\*
- 109 Non-Conforming Mineral Resource Sites\*\*\*
- △ Owner-Identified Potential Sub-Surface Coal Sites\*\*\*\*
- ▭ Incorporated Areas
- ▭ Tribal Lands
- ~ Urban Growth Area Boundary
- ~ Forest Production District Line

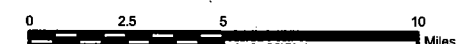
\*\*Sites with Mineral Zoning.

\*\*Sites identified by the landowner or operator prior to Nov. 18, 1994 and sites that as of Nov. 18, 1994 had pending rezone applications for Quarrying/Mining (now Mineral) zoning or had potential Quarrying/Mining (now Mineral) zoning.

\*\*\*Sites on which mining operations pre-date King County zoning regulations, but without zoning or other land use approvals.

\*\*\*\* Owner-Identified Potential Sub-Surface Coal Sites are not parcel specific.

Source: U.S. Forest Service, King County Departments of Assessments and Development and Environmental Services



July 2004

## Mineral Resources Property Information for the Mineral Resources Map

### DESIGNATED MINERAL RESOURCE SITES

Map #	Section-Township-Range	Site Name and/or Owner/Operator	Product*	Total Site Acreage (approx.)
1	25-21-06	Cadman S & G/Flintston S&G	SG	75
2	11-20-07	Plum Creek Timber Company	SG	476
3	21-22-03	Ideal Cement Co/King County	SG	39
4	28-22-03	Maury Island/Lonestar Northwest	SG	250
5	27-22-07	Kangley Pit/Meridian Aggregates Co. (398 acres) and Stoneway Concrete Gravel Pit/Gary Merlino Construction	SG	608
6	28-23-06	Cedar Grove Pit/Queen City Farms	SG	315
7	33-23-06	Lake Francis Pit/Plumb Creek Timber Co.	SG	143
8	33-23-06	Cedar Grove Pit/ANMARCO	SG	35
9	20-23-06	Cedar Mountain Pit/ Rivera & Green	SG	57
10	19-22-06	Black River Quarry	SG	374
	20-22-06			
	29-22-06			
	30-22-06			
11	22-24-06	Gravel Pit/Washington Asphalt Co. and Glacier Ridge PS	SG	320
12	08-26-07	J. Margan	SG	13
	17-26-07			
13	19-24-08	Snoqualmie/Weyerhaeuser Co. and S. Parsons et. al.	SG	665
	20-24-08			
14	05-23-06	Sunset Quarry/Meridian Aggregates	RS	120
15	06-23-06	Squak Mountain Quarry/M. Palmer	RS	16
16	22-24-07	Raging River/Cadman	RS	46
17	33-20-07	Highway 410 Quarry/J. Laramie	RS	34

### DESIGNATED MINERAL RESOURCE SITES

Map #	Section-Township-Range	Site Name and/or Owner/Operator	Product*	Total Site Acreage (approx.)
18	28-26-11	Meridian Aggregates	R	38
19	11-21-06	John Henry Coal Mine/Palmer Coking	C	375
	12-21-06	Coal		
20	01-21-06	Reserve Silica Corporation/Plum Creek	S	612
	36-22-06	Timber Co. and Silica Sand Mine		
21	01-19-07	Weyerhaeuser Co.	S	625
22	34-22-07	Elk Pit/Mutual Materials, Inc.	CL	60
23	32-24-06	State of Washington	CL	21
24	31-24-06	Section 31 pit/King Co.	SH/CI	322
25	32-24-06	Interpace Harris Mine/ R.Thompson and Eltra Corp.	SG	60
26	35-22-06	Meridian Minerals Co.	SG	57
27	29-23-06	Pinnacle Exploration	SG	49
28	29-23-06	ANMARCO and G. Newell	SG	115
	32-23-06			
29	29-23-06	Plum Creek Timber Co.	SG	200
30	27-24-06	Issaquah/King Co.	SG	18
31	05-23-06	King County	SG	383
32	33-23-06	Lake Francis/Plum Creek Timber Co.	SG	233
33	35-22-05	162nd Av SE/James Development Co. and O. Joscelyne	SG	28
34	35-22-05	Washington Asphalt Co.	SG	23

## Mineral Resources Property Information for the Mineral Resources Map

### POTENTIAL SURFACE MINERAL RESOURCE SITES

Map #	Section-Township-Range	Site Name and/or Owner/Operator	Product	Total Site Acreage (approx.)
35	35-22-05	T. Scarsella		11
36	07-25-06	Cadman/King Co.		24
37	33-23-06	Merlino Property/ANMARCO		32
39	20-23-06	Rivera and Green		21
40	22-26-06	T. Alberg		40
41	31-26-07 36-26-06	T. Alberg		160
42	8-26-07 17-26-07	R. and A. Thompson		11
43	32-23-09	R. and A. Thompson		145
44	11-21-05	B & M Investments		174
45	25-22-02	Doane Family Ltd.		60
46	08-25-06	W. Nelson		86
47	18-21-07	Palmer Coking Coal		79
48	30-21-07	Palmer Coking Coal		275
50	36-21-06	Palmer Coking Coal		116
51	06-23-06	Palmer		39
52	12-23-05	R. and R. Schroeder and Pacific Company Constructors		30
53	02-20-06	State of Washington		36
54	03-91-33	Weyerhaeuser Co.		36
55	02-20-07 12-20-07	Weyerhaeuser Co., State of Washington, Metro		634

### POTENTIAL SURFACE MINERAL RESOURCE SITES

Map #	Section-Township-Range	Site Name and/or Owner/Operator	Product	Total Site Acreage (approx.)
56	10-20-07	Weyerhaeuser Co.		80
57	15-26-07	State of Washington		320
58	16-21-05	State of Washington		38
59	17-23-07 18-23-07 19-23-07 20-23-07	State of Washington		640
60	26-21-06	M & K Company		18
61	27-24-06	State of Washington		40
62	30-20-08	Weyerhaeuser Co.		141
63	30-21-07	State of Washington and Palmer Coking Coal		60
64	30-21-08	State of Washington		168
65	34-24-06	State of Washington		32
66	35-24-06	State of Washington		20
67	36-20-06	State of Washington		79
68	36-20-06	State of Washington		40
69	36-21-06	State of Washington		152
70	36-21-07	State of Washington		640
71	36-23-06	State of Washington		115
72	04-21-07	Weyerhaeuser Co.		173
73	03-25-09 04-25-09 05-25-09 10-25-09 33-25-09 34-26-09	Weyerhaeuser Co.		3079

## Mineral Resources Property Information for the Mineral Resources Map

### POTENTIAL SURFACE MINERAL RESOURCE SITES

Map #	Section-Township-Range	Site Name and/or Owner/Operator	Product	Total Site Acreage (approx.)
74	11-4-07 22-4-07 32-4-07 26-25-07 27-25-07 34-25-07 35-25-07	Weyerhaeuser Co.		3655
75	01-19-07 (4-8)-19-8 12-19-07 28-20-08 31-20-08 32-20-08 33-20-08 36-20-07	Weyerhaeuser Co., United States, U.S. Corps of Engineers		4214
76	(17-20) of 23-09 and (28-30) of 23-09	Weyerhaeuser Real Estate Co.		1765
77	21-23-09 27-23-09 28-23-09	Weyerhaeuser Co. and State of Washington		705
78	13-24-07; (17-20) of 24-07	Weyerhaeuser Co., Riley, Everett, Hamerly		1926
79	06-21-07 7-21-07	E. Seliger, Weyerhaeuser Co, Bremmeyer, and Palmer Coking Coal		1167
80	08-21-07	Weyerhaeuser Co.		113
81	16-21-07	Metro		599
82	24-21-06	Cadman Black Diamond/Weyerhaeuser Co.		434
83	20-20-07 29-20-07	Weyerhaeuser Co.		925

### POTENTIAL SURFACE MINERAL RESOURCE SITES

Map #	Section-Township-Range	Site Name and/or Owner/Operator	Product	Total Site Acreage (approx.)
84	28-20-07 32-20-07 33-20-07	Weyerhaeuser Co.		669
85	04-19-07 05-19-07 32-20-07	Weyerhaeuser Co.		1572
86	34-25-07	L.A.-Welcome		24
87	36-21-05	Sparling/King Co.		41
88	21-24-07	Raging River/King Co.		40
89	32-22-07	Lake Retreat/King Co.		82
90	35-22-02	Sprolws/King Co.		40
92	23-26-07	Swan Quarry/King Co.		76
93	31-23-07	Route 18 Fill Project/Plumb Creek Timber Co.	SG	40

# Mineral Resources Property Information for the Mineral Resources Map

## LEGAL NON-CONFORMING MINERAL RESOURCE SITES AND EXISTING MINERAL RESOURCE SITES IN THE FPD

Map #	Section- Township- Range	Site Name and/or Owner/Operator	Product	Total Site Acreage (approx.)
94	06-19-07	R. & B. Jensen	SG	13
95	29-20-07	Moulder Pit/Weyerhaeuser Co.	SG	60
96	30-21-07	R. Morris and Palmer Coking Coal	SG	158
97	15-22-06	Maple Valley/R&H Partnership	SG	6
98	07-23-06	PG and RT Schroeder	SG	22
99	23-26-06	Chapman Pit/Alberg	SG	53
100	34-25-07	L.A. Welcome	SG	5
101	29-23-09	PG and RT Schroeder	SG	53
102	26-22-05	Calhoun/King Co.	SG	23
103	34-22-06	Summit/King Co.	SG	176
104	13-20-06	Enumclaw Quarry/Richard Pierotti	RS	14
105	06-20-07	Veasey/Dwight and Doris Garrett	RS	8
106	27-26-11	Miller River Quarry/MRGC Timberland	R	11
107	37-79-20	Black River Quarry/Lloyal Newburn	R	5
108	37-79-20	Black River/MaryEllen Hughes	R	9
109	34-22-07	Elk Pit/Mutual Materials Co.	CI	60
110	31-21-07	Palmer Coking Coal Co.		20
111	16-24-07	Hoover/King Co.		40
112	04-25-07	Redmond Pit/Cadman Gravel Co.	SG	18

### \*KEY

SG = Sand & Gravel

RS = Rock & Stone

R = Rock

C = Coal

ShCl = Shale & Clay

CI = Clay

S = Silica

NOTE: Each map number corresponds to one or more parcel number(s), and in some cases different owners and operators. The acreage listed represents the sum acreage of all the parcels of the site. Please refer to the technical appendix for the parcel-specific version of this table.

## Chapter Four

# Environment

With chinook salmon and bull trout now listed as a threatened species, and other valued species dangerously close to joining the list, protecting both our rural and urban environments remains a critical concern.

King County's regulations for protecting the environment are some of the most stringent in the country. In a region as rainy as the Pacific Northwest, maintaining healthy wetland systems, controlling stormwater runoff and preventing development on sloping hillsides are all vital in preventing erosion and flooding. Without proper regulatory control, damage to private property, as well as salmon streams, is unavoidable and costly.

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# I. Natural Environment

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## A. Protection and Regulation

Protecting and restoring air quality, water resources, soils, and plant, fish and animal habitats are among King County's primary goals. This chapter establishes policies to protect the environment and enhance the region's high quality of life. Most of this chapter's policies provide a basis for either new nonregulatory approaches or for existing regulations. Some new regulations are necessary to implement the policies. However, new regulations such as wetland mitigation banking offer flexibility compared with existing regulations.

Every resident of King County has an equal right to a healthy and safe environment. This requires that our air, water, earth and food be of a sufficiently high standard that individuals and communities can live healthy, fulfilling and dignified lives. The duty to enhance, protect and preserve King County's environment rests on the shoulders of government, residents, resident groups and businesses alike.

The Growth Management Act (GMA) requires that critical areas be designated and protected. Critical areas include wetlands, areas with a critical recharging effect on aquifers used for potable water, fish and wildlife habitat conservation areas, frequently flooded areas and geologically hazardous areas. This chapter establishes policies for designating and protecting critical areas. King County Code Title 21A provides the regulatory framework for these policies.

One of the most significant environmental issues facing King County is the recent listing of salmonid species under the Endangered Species Act. Wild Pacific salmon have great cultural, economic, recreational and symbolic importance to the Puget Sound region. It is King County's goal to ensure long-term protection of our salmon resources to harvestable levels for today and tomorrow, with the least economic impact possible. Successful restoration and maintenance of healthy salmon populations will require time, money and effort, and collaboration with federal, state, tribal and local governments, as well as businesses, environmental groups, and citizens. To meet this goal, King County and the region will need to consider salmon when making decisions about land use and development, providing facilities and services, maintaining roads, parks, and flood control facilities, and building new capital improvement projects.

Relative to land use, three types of environmental situations exist in King County. In highly developed urban areas, the quality and functions of most critical areas have been significantly affected by past development. Additional impacts in these affected areas will likely result from higher density development, but these impacts may be preferable than similar impacts to currently pristine areas, which can result in a net loss of the region's natural resources. Salmon-bearing streams and rivers do pass through many urbanized areas in King County. The challenge of this plan is to balance the need to meet urban density goals and prevent urban sprawl, while also ensuring such development occurs in accordance with the provisions and requirements of the GMA and the Endangered Species Act. To meet this challenge, a variety of regulatory and nonregulatory tools and programs will be needed.

In other urban areas with low levels of development, significant critical areas are usually more intact than in highly developed urban areas. Onsite mitigation of new development, if designed well and monitored, may achieve resource protection. Achieving development goals must be balanced with protecting critical area functions and tailoring individual solutions by following the guidance of comprehensive plan policies that recognize both critical area protection and the need to reduce urban sprawl.

The Rural Area and Natural Resource Lands contain the bulk of King County's remaining wildlife and fisheries values. Protection of resources through land use planning and impact mitigation will be most successful in these areas, and it can occur with the least disruption to intended land uses.

While critical areas within the Urban Growth Area will receive adequate protection, the emphasis is to protect and enhance critical areas in the Rural Area and Natural Resource Lands and to avoid impacts to specific animal species, such as salmon and bald eagles, that use or pass through the Urban Growth Area. These policies provide for a watershed-based approach to planning. This approach acknowledges that different areas of King County have different resource values and face different levels of development pressure, therefore different methods of protecting critical areas need to be developed to balance the protection of the environment with the need to reduce urban sprawl and preserve our quality of life.

**E-101        In addition to its regulatory authority, King County should use incentives to protect and restore the natural environment whenever practicable. Incentives should be monitored to determine their effectiveness.**

**E-102        King County should take a regional role in environmental stewardship through direct education, coordinating of educational efforts and establishing partnerships with other entities that share similar environmental concerns or stewardship opportunities.**

King County needs to coordinate many programs with other agencies. Coordination with the Washington State Department of Ecology and affected jurisdictions is necessary to comply with mandates of the Clean Water Act that address point and non-point source pollution. Further coordination with air quality agencies, such as the Puget Sound Air Pollution Control Agency and Puget Sound Regional Council, is needed to exchange information and develop consistent programs. Coordination with water service providers who use groundwater sources is necessary to protect the region's groundwater quantity and quality.

**E-103        King County should coordinate with local jurisdictions, federal and state agencies, federally recognized tribes, citizen interest groups, special districts, and citizens to develop Water Resource Inventory Area plans for all areas of King County.**

**E-104        Development of environmental regulations and restoration projects should be coordinated with local jurisdictions, federal and state agencies, federally recognized tribes, special interest groups and citizens when protecting and restoring the natural environment consistent with Urban Growth Area, Rural Area and Natural Resource Land goals.**

King County will use existing and updated subarea and functional plans and Water Resource Inventory Area plans to provide guidance to programs, regulations and incentives to protect and restore environmental quality.

**E-105        Environmental quality and important ecological functions shall be protected and hazards to health and property shall be minimized through development reviews and implementation of land use plans, Water Resource Inventory Area plans, surface water management plans and programs, flood hazard reduction plans and park master plans. These plans shall also encourage restoration of critical areas as defined in the Growth Management Act, and include an adaptive management approach.**

**E-106        King County wishes to create an equitable relationship with all citizens in the Rural Area who own and/or control potential development or redevelopment of property with critical and/or significant resource areas. However, some affected property**



owners may not wish to enter into a rural stewardship, or farm, or forestry stewardship plan and will choose to accept fixed regulations under the critical areas, clearing and grading, and stormwater ordinances. These property owners are entitled to have their property assessed at the true and fair value of real property for taxation purposes. The portion(s) of a property that are not developed or redeveloped due to environmental constraints shall be assessed to reflect the presence of physical and environmental constraints as provided in RCW 84.40.030 and K.C.C. 4.62.010, 4.62.020, and 4.62.030.

- E-107** The protection of lands where development would pose hazards to health, property, important ecological functions or environmental quality shall be achieved through acquisition, enhancement, incentive programs and appropriate regulations. The following natural landscape features are particularly susceptible and should be protected:
- a. Floodways of 100-year floodplains;
  - b. Slopes with a grade of 40 percent or more or landslide hazards that cannot be mitigated;
  - c. Wetlands and their protective buffers;
  - d. Aquatic areas, including streams, lakes, saltwater shorelines and their protective buffers;
  - e. Channel migration hazard areas;
  - f. Designated wildlife habitat networks;
  - g. Critical Aquifer Recharge Areas;
  - h. Marine beaches, wetlands, intertidal and subtidal habitat and riparian zones including bluffs;
  - i. Regionally Significant Resource Areas and Locally Significant Resource Areas; and
  - j. Fish and Wildlife Habitat Conservation Areas, and other critical habitat areas identified for protection through Water Resource Inventory Area plans.
- E-108** Regulations to prevent unmitigated significant adverse impacts will be based on the importance and sensitivity of the resource. The presence of a species listed as endangered or threatened by the federal government may be considered an unusual circumstance and the county may use its authority under the State Environmental Policy Act (SEPA) to mitigate for significant adverse environmental impacts to that habitat that supports those species.
- E-109** King County should promote efficient provision of utilities and public services by exempting minor activities from its critical areas regulations, provided the agency has an approved best management practice plan approved by King County, and the plan ensures that proposed projects that may affect habitat of listed species be carried out in a manner which protects the resource or mitigates adverse impacts.

## **B. Air Quality**

### **1. Overview**

The preservation of clean air is essential to the quality of life enjoyed by residents of King County. Since many of the long-term solutions to air pollution in our region now depend on land use and transportation decisions, King County must assume a more active role in maintaining the region's good air quality.

Clean, healthy air is a major contributor to the health of the public. The elderly, those suffering from respiratory illness, and young children are especially prone to the harmful effects of air pollutants. People with chronic respiratory problems, such as asthma, are most sensitive to particular forms of air pollution, such as ozone and particulate pollution.

Puget Sound Clean Air Agency (PSCAA) has the lead regulatory and monitoring responsibilities for the region in accordance with the Clean Air Act. PSCAA has a lead role in developing strategies to reduce these emissions throughout the region. King County will continue to work with PSCAA in implementing emissions reduction efforts. King County will monitor the government's own emissions and will work to develop policies and projects to reduce them. Further, as the land use authority for unincorporated King County and the governing body for Metro Transit, King County will consider the air quality in its own policy and planning efforts.

The major improvements in air quality result from collaboration and partnerships among public agencies, and between public agencies and private interests. Examples of partnerships include:

- Diesel Solutions partnership demonstrating the potential of ultra-low-sulfur diesel fuel;
- Creation and implementation of the new rules regarding control of vapors from gasoline pumps at service stations, where collaboration between government and the private sector facilitated the development and are working on the efficient implementation of the rules' provisions;
- Three stakeholder processes with businesses, governments and nonprofit to form consensus on implementation policies for ozone, particulates and greenhouse gases.

## **2. Ozone, Fine Particulate, Toxics**

Ozone will continue to be a focus for King County. Though the region has attained the National Ambient Air Quality Standards, the margin for failing and slipping back into a non attainment status is tight. The ozone strategy identified by PSCAA for our region focuses on reducing volatile organic compounds (VOCs). The PSCAA has stated that volatile organic compounds are the main concern. Emission of volatile organic compounds results mostly from petroleum refining, use, handling and combustion.

In addition to ozone, there is a serious health threat from fine particulates. Diesel emissions are one of the county's largest sources of fine particulate emissions. King County's participation in the ultra-low sulfur diesel (ULSD) program, known as "Diesel Solutions," has made tremendous strides in cleaning up King County Metro's fine particulate emissions. Indoor burning and outdoor burning are a major source of fine particulates.

Lastly, toxics are becoming an increasing concern for the region. Examples of air toxics include benzene, formaldehyde, mercury, and dioxins and literally thousands of other air toxics. The air quality impact of toxics are not be evaluated in isolation. Their greatest health risk comes from their combined effect. National air toxics assessment data indicate that air toxics risks in the Puget Sound region are in the top five percent in the nation. Local air monitoring data done by the State Department of Ecology indicates that diesel exhaust and wood smoke are key contributors to toxics. Diesel school buses are of particular concern. A recent study indicated that school children are exposed to toxics levels five to 15 times the exposure to the rest of the population because of the amount of time they spend on and around school buses. The Diesel Solutions Program is now concentrating on cleaning up the emissions from these buses. As a large urban-rural county, air toxics will continue to be a primary health risk.

## **3. Greenhouse Gas (GHG) Emissions**

Global climate change has and will continue to have local impacts. University of Washington climate scientists predict that the Cascade snowpack will be 50 percent less in as little as 50 years because of regional changes in climate. Likely results from this reduced snowpack are habitat degradation, deforestation from drought and fires, and less water for drinking, irrigation and hydropower generation. Recreational activities of fishing, skiing, boating, and rafting may be significantly curtailed.

Beyond reduced snowpack, there will likely be coastline erosion from rising sea levels; more droughts and floods from more erratic weather patterns; increased ozone levels from warmer summers; heat-related deaths; and greater infestation of mosquito-related disease and forest pests.

Climate scientists further assert that there will need to be a 60-80 percent reduction in GHG emissions below 1990 levels if the climate is to be stabilized. As of 2003, global emissions are already 10-20 percent above 1990 levels. Some permanent adverse effects from climate change are underway.

Mobile sources, primarily on-road transportation, account for more than 50 percent of all GHG emissions in King County. Transportation emissions in the United States usually account for about 32 percent of GHG emissions. Therefore, transportation emissions present a distinctive challenge for the region. Vehicles and fuels also are the biggest contributors to ozone, fine particulates and toxics.

Strategies to reduce GHG emissions from transportation generally fall into two categories: reduce vehicle GHG emissions and reduce vehicles miles traveled (VMT). For vehicle GHG emissions reductions, again there are two general approaches: use more fuel efficient vehicles or use alternative fuels. For efficient vehicles, Fleet Administration has been buying hybrid vehicles and King County Metro has recently purchased 235 hybrid buses. King County currently is reviewing the possibility of buying alternative fuels. For VMT reductions, King County will continue its work to expand transit service, support demand management and transit-oriented development, as well as variety of other approaches.

King County recognizes that the global warming challenge is worldwide in its scope, and that much of the scientific community believes that potentially far reaching consequences to the environment and to humankind's quality of life may result if this issue is not addressed effectively. King County's actions are important contributors to addressing this issue; however, its global nature will require cooperation across state and national boundaries.

#### **4. King County Actions**

In 2001, the King County Council and County Executive directed that there should be an inventory of air pollutants and GHG emissions from King County government operations. In 2002, King County completed its inventory. This inventory will continue to provide the focus for county policies and projects.

The focus of King County air quality efforts is to engage in projects and changed practices that reduce county emissions and promote policies that incorporate consideration of air quality impacts. Examples of King County projects include the diesel solutions program and the retrofitting of transit vehicles as well as solid waste and roads vehicles to use ultra-low sulfur diesel; promoting the use of cleaner energy sources such as fuel cells at the Renton Wastewater Treatment Plant, and pursuing all cost-effective energy conservation programs in county facilities to minimize the county's use of fossil-fuel-based energy sources.

King County has undertaken study of how land use planning affects transportation choices and consequently air quality. The Land Use Transportation Air Quality and Health study will provide information how land use patterns can affect air quality. The study has found that greenhouses gas and regional air pollution decline steadily as housing density increases.

- E-110      King County shall work to reduce air pollutants and greenhouse gas emissions from its operations and seek to promote policies and programs that reduce emissions in the region. Reducing ozone, fine particulates and toxic emissions should be the top priority followed closely by greenhouse gas emissions.**
- E-111      Motorized vehicle and other fuel burning engines related emissions are the primary source of ozone, fine particulate, toxics and greenhouse gas emissions in King County and therefore should be the primary focus for emissions reduction.**
- E-112      A reduction in automobile use will have a direct benefit for improving air quality and should include initiatives such as:**
  - a. Increased transit services, options and alternatives;**
  - b. Ridesharing; and**
  - c. Innovative pricing programs to capture the true cost of driving.**

- E-113** Improving vehicle efficiency and after treatment technology, as well as cleaning up petroleum fuels and fuel switching should be key strategies for reducing motorized vehicle related emissions. Such strategies should include:
- a. Support for state and federal initiatives that improve fuel economy and therefore reduce greenhouse gas emissions;
  - b. Continued investment into cleaner fuels and related emissions treatment technologies;
  - c. Support for alternative fuels where financially practicable.
- E-114** In addition to motorized vehicle related reductions, the county should support initiatives that reduce emissions due to indoor and outdoor wood burning consistent with the actions of PSCAA to control this source of public health threat.
- E-115** King County should encourage its electricity suppliers to provide energy efficiency, renewable energy and mitigation for electricity sources that are powered by natural gas and coal. In addition, King County should encourage the state to require new fossil fuel power plants to mitigate for their carbon dioxide emissions.
- E-116** King County will continue to evaluate its own maintenance and operations practices including procurement for opportunities to reduce its own emissions or emissions produced in the manufacturing of products.
- E-117** King County should promote community designs that enable walking, bicycling and public transit use thereby reducing greenhouse gas emissions and regional air pollution.
- E-118** King County will continue to actively develop partnerships with the Puget Sound Clean Air Agency, local jurisdictions, the state, and public, private, not-for-profit groups to promote programs and policies that reduce emissions of ozone, fine particulates, toxics, and greenhouse gases.

### **C. Water Resources**

King County's water resources include Puget Sound, rivers, streams, lakes, wetlands, marine nearshore and receiving waters of Puget Sound, and ground water. These resources provide many beneficial functions, including fish and wildlife habitat, flood and erosion control, water supply for agricultural, commercial, domestic and industrial use, energy production, transportation, recreational opportunities and scenic beauty.

In order to preserve and enhance the water resources in King County, those resources must be managed as an integrated system, not as distinct and separate elements. The hydrologic cycle (the occurrence, distribution and circulation of water in the environment) is the common link among the water resources and describes their interdependence.

Our use and modification of water resources and the surrounding terrestrial environment affects how the hydrologic cycle functions and can cause unintended detrimental impacts such as flooding, erosion, degradation of water quality, loss of fish and wildlife habitat, and loss of archeological and traditional cultural resources that depend upon but do not damage natural resources. In order to minimize adverse impacts on the water resources of King County and ensure our continued ability to receive the benefits they provide, we need to promote responsible land and water resource planning and use.

- E-119** King County shall use incentives, regulations and programs to manage its water resources (Puget Sound, rivers, streams, lakes, freshwater and marine wetlands and ground water) and to protect and enhance their multiple beneficial uses – including

**fish and wildlife habitat, flood and erosion control, water quality control and sediment transport, water supply, energy production, transportation, recreational opportunities and scenic beauty. Use of water resources for one purpose should, to the fullest extent practicable, preserve opportunities for other uses.**

- E-120      Development shall support continued ecological and hydrologic functioning of water resources and should not have a significant adverse impact on water quality or water quantity, or sediment transport and should maintain base flows, natural water level fluctuations, groundwater recharge in Critical Aquifer Recharge Areas and fish and wildlife habitat.**

A watershed is an area that drains to a common outlet or identifiable water body such as Puget Sound, a river, stream, lake or wetland. There are six major watersheds in King County (Cedar River, Green River, Puget Sound, Skykomish River, Snoqualmie River and White River) divided into 72 individual basins that, in turn, contain numerous individual water bodies with small drainages. Surface and ground waters are managed most effectively by considering potential problems and solutions for an entire watershed. Because watersheds frequently extend into several jurisdictions, effective planning and implementation must be coordinated.

- E-121      King County shall integrate watershed plans with marine and freshwater surface water, ground water, drinking water and wastewater planning to provide efficient water resource management.**
- E-122      As watershed plans are developed, zoning, regulations and incentive programs may be developed, applied and monitored so that critical habitat in King County watersheds is capable of supporting sustainable and fishable salmonid populations. Watershed-based plans should define how the natural functions of watersheds critical to salmonids are protected so that the quantity and quality of water entering the streams, lakes, wetlands and rivers support salmonid spawning, rearing, resting, and migration.**
- E-123      King County shall protect and should enhance surface waters, including streams, lakes, wetlands and the marine near shore and receiving waters of Puget Sound, on a watershed basis by analyzing water quantity and quality problems and their impacts to beneficial uses, including fish and wildlife habitat and flood and erosion control. Conditions of and impacts to the downstream receiving marine beaches and waters of Puget Sound shall be included in watershed management efforts. King County shall continue to participate in the Central Puget Sound Water Resource Planning effort.**
- E-124      King County should protect and enhance the natural environment in those areas recommended as Aquatic Reserves by Washington State Department of Natural Resources. This should include participation in management planning for the aquatic reserves and working with willing landowners adjacent to the reserve on restoration and acquisition projects which enhance the natural environment.**
- E-125      Responsibility for the costs of watershed planning and project implementation including water quality, flood hazard reduction and fisheries habitat protection, should be shared between King County and other jurisdictions within a watershed.**

King County contains a number of wetlands, river and stream reaches that are important to the viability of fish and wildlife populations and are therefore considered biological, social and economic resources. Some resource areas were previously identified through basin plans and other resource inventory efforts, and are categorized as either Regionally Significant Resource Areas (RSRAs) or Locally Significant Resource Areas (LSRAs). RSRAs contribute to the resource base of the entire Puget Sound region by

virtue of exceptional species and habitat diversity and abundance when compared to basins of similar size and structure elsewhere in the region. These areas may also support rare, endangered or sensitive species, including threatened salmonids. LSRAs contribute to the aquatic resources within a specific basin, when compared to aquatic and terrestrial systems of similar size and structure elsewhere in the basin. They also provide wetland and stream habitat that is important for wildlife and salmonid diversity and abundance within the basin. As Water Resource Inventory Area plans are prepared in compliance with the Endangered Species Act, additional resource areas will be identified and analyzed to determine appropriate levels of resource protection.

- E-126 Watershed management plans, Water Resource Inventory Area plans, flood hazard reduction plans and master drainage plans should apply a tiered system of protection that affords a higher standard of protection for more significant resources. Resource categories should include Regionally Significant Resource Areas (RSRAs), Locally Significant Resource Areas (LSRAs), Fish and Wildlife Habitat Conservation Areas, and remaining resources. Where appropriate, additional designations shall be made as additional information on environmental functions becomes available.**
- E-127 Regionally Significant Resource Areas (RSRAs) and Locally Significant Resource Areas (LSRAs) shall be mapped, designated by ordinance and protected at appropriate levels as part of early and long-term actions towards salmon conservation and recovery under the ESA. These designations shall be based on adopted basin plans or habitat/resource assessments completed for the Waterways 2000 program, but may be changed or new areas may be designated pursuant to recommendations of Water Resource Inventory Area plans. The Executive shall study the standards of protection needed for RSRAs and LSRAs.**

King County's Shoreline Management Master Program (Title 25 of the King County Code) is a functional plan developed in compliance with the Washington State Shoreline Management Act of 1971. The master program protects streams with a mean annual flow of 20 cubic feet or more per second, lakes that are 20 acres or more in size, the marine shoreline of Puget Sound and wetlands associated with these systems.

- E-128 Development within designated shoreline environments shall preserve the resources and ecology of the water and shorelines, avoid natural hazards, promote visual and physical access to the water, protect ESA listed species and their critical habitat, and preserve archeological, traditional cultural resources, shellfish resources, and navigation rights. Protection of critical areas shall take priority over visual values and physical access.**

Puget Sound was included in the National Estuary Program in March 1988. The National Estuary Program requires that a comprehensive conservation and management plan for Puget Sound recommend actions to restore and protect the estuary. The 1994 Puget Sound Water Quality Management Plan is the federally approved comprehensive conservation and management plan for Puget Sound.

- E-129 King County shall implement the Puget Sound Water Quality Management Plan to restore and protect the biological health and diversity of the Puget Sound Basin.**

Rivers, streams, lakes and wetlands must be protected from the adverse impacts of urbanization and land use to continue functioning in a beneficial manner. Because urbanization increases stormwater runoff, control of the quantity and quality of stormwater runoff is critical. Unmitigated stormwater runoff can cause erosion, sedimentation and flooding with resulting adverse impacts on water quality, fish and wildlife habitat, property and human safety. In addition, stormwater runoff can carry pollutants such as oil, heavy metals, fertilizers, herbicides, pesticides and animal wastes into waters. Sedimentation from

soil disturbed by clearing, grading, farming and logging can reduce river or stream channel capacity, fill lakes and wetlands, and smother aquatic life and habitat.

Methods of stormwater management include clearing restrictions, retention/detention, low-impact development methods, discharge and infiltration standards, and best management practices.

**E-130      Stormwater runoff shall be managed through a variety of methods, with the goal of limiting impacts to aquatic resources, reducing the risk of flooding, protecting and enhancing the viability of agricultural lands and promoting groundwater recharge. Methods of stormwater management shall include temporary erosion and sediment control, flow control facilities, water quality facilities as required by the Surface Water Design Manual, and best management practices as described in the Stormwater Pollution Control Manual. Runoff caused by development shall be managed to prevent adverse impacts to water resources and farmable lands. Regulations shall be developed for lands outside of the Urban Areas that favor nonstructural stormwater control measures when feasible including: vegetation retention and management; clearing limits; limits on actual impervious surface and impacting impervious surface; low-impact development methods that disburse runoff into native vegetation; and limits on soil disturbance.**

The Federal Clean Water Act requires states to prepare a list of water bodies that do not meet water quality standards. This list, known as the 303(d) list, is prepared for Washington State by the State Department of Ecology, and must be submitted to the U.S. Environmental Protection Agency (EPA) every two years. The water bodies on the list consist of "water quality limited" estuaries, lakes, rivers and streams that fall short of state surface water quality standards, and are not expected to achieve standards after implementation of technology-based controls. These standards are intended to ensure that our waters can be beneficially used for purposes we all enjoy, from fishing, swimming, boating, and drinking to industrial and agricultural purposes, and fish habitat. The beneficial uses that are intended to be protected by water quality standards are those that have existed or could have existed in the waterbody from November 1975 or later.

EPA requires that states set priorities for cleaning up impaired waters and establish a Total Maximum Daily Load (TMDL) for each. A TMDL, or water cleanup plan, entails analysis of how much pollution a waterbody can receive and still support its beneficial uses. The cleanup plan also includes recommendations for controlling pollution sources and a monitoring plan to test the plan's effectiveness. TMDL's have been approved by EPA for the Snoqualmie River, Lake Ballinger, Pipers Creek, Lake Fenwick, Lake Sawyer, and the Duwamish River and Lower Green. A complete listing of TMDLs and the 303(d) list can be found on the Department of Ecology's web site at <http://www.ecy.wa.gov/>.

**E-131      Surface waters designated by the state as Water Quality Impaired under the Clean Water Act (water bodies included on the State 303(d) list) shall be improved through monitoring, source controls, best management practices, enforcement of existing codes, and Total Maximum Daily Load plans (TMDLs). The water quality of all other state-classified water bodies shall be maintained or improved through these same measures, and other additional measures that may be necessary to ensure there is no loss of existing beneficial uses. Any beneficial uses lost since November 1975 shall be restored wherever practicable, consistent with the Federal Clean Water Act.**

There are approximately 3,126 miles of rivers and streams in King County. The river and stream channels, the surrounding riparian (streamside) areas and upland areas all contribute to the functioning and integrity of rivers and streams. Many rivers and streams provide critical habitat for many species of wildlife and fish, including salmonids.

**E-132      River and stream channels, stream outlets, headwater areas, and riparian corridors should be preserved, protected and enhanced for their hydraulic, hydrologic,**

**ecological and aesthetic functions, including their functions in providing woody debris sources to salmonid-bearing streams.**

There are approximately 700 lakes in King County ranging in size from less than one acre to Lake Washington. These lakes provide critical habitat for many species of fish and wildlife, including salmonids, as well as recreational opportunities and scenic beauty. Development near lakes can alter their functioning and lead to eutrophication (increases in nutrients). Eutrophication promotes the excessive growth of plant and animal life with the eventual depletion of oxygen levels caused by decay of the excess organic matter.

- E-133      Lakes should be protected through management of lake watersheds and shorelines. Lakes sensitive to nutrients shall be protected through the management of nutrients that stimulate algae blooms and aquatic plant growth. Where sufficient information is available, measurable standards for lake quality should be set and management plans established to meet the standards. Formation of lake management districts or other financing mechanisms should be considered to provide the financial resources necessary to support actions for protection of sensitive lakes.**

Wetlands are valuable natural resources in King County. They include shallow or deep marshes, bogs, ponds, wet meadows, forested and scrub-shrub communities and other lands supporting a prevalence of vegetation adapted to saturated soils. Many of the larger wetlands in King County are mapped in the County's *Sensitive Areas Map Folio*, and their vegetation, hydrology and wildlife are briefly described in the King County Wetlands Inventory.

- E-134      King County shall use as minimum standards the Washington State Wetlands Identification and Delineation Manual, 1997, or its successor which is adopted by the King County Council and is the scientifically accepted replacement methodology based on better technical criteria and field indicators. King County shall categorize wetlands using the Washington State Wetland Rating System for Western Washington or its successor.**
- E-135      King County shall work with other jurisdictions and federally recognized tribes to establish uniform countywide wetlands policies that provide protection of both regionally and locally unique wetlands.**

Wetlands are productive biological systems, providing habitat for fish and wildlife. They may serve as outdoor classrooms for scientific study. Some are used for hiking, hunting, and fishing. Wetlands also store flood waters and control runoff, thereby reducing flooding, downstream erosion and other damage. Further, wetlands protect water quality by trapping sediments and absorbing pollutants. They discharge ground water, making it available to plants and animals. Wetlands store peak flows and discharge to streams in dry periods, thus enabling fish and other riparian animal populations to survive. These wetland functions need consideration from a watershed perspective. Measures to protect wetland functions and values need to be taken at both the site-specific and watershed scale. In the urban area, land use authority is often shared by multiple jurisdictions at the scale of a drainage basin. Similarly, efforts to protect and restore wetlands may be sponsored by multiple parties, including local governments.

- E-136      King County's overall goal for the protection of wetlands is no net loss of wetland functions and values within each drainage basin. Acquisition, enhancement, regulations, and incentive programs shall be used independently or in combination with one another to protect and enhance wetlands functions and values. Watershed management plans, including Water Resource Inventory Area plans, should be used to coordinate and inform priorities for acquisition, enhancement, regulations, and incentive programs within unincorporated King County to achieve the goal of no net loss of wetland functions and values within each drainage basin.**



- E-137      Development adjacent to wetlands shall be sited such that wetland functions and values are protected, an adequate buffer around the wetlands is provided, and significant adverse impacts to wetlands are prevented.**

The functions and values of a wetland will change as land use surrounding the wetland changes. Development-related changes in forest cover and impervious surface affect stormwater runoff patterns, flooding, water quality, and wetland hydrology. Fragmentation of habitat is considered the greatest threat to native biodiversity. Wetlands in the Urban Growth Area will experience the greatest reduction in the number of native animals and plants due to habitat fragmentation.

Protecting native species biodiversity depends upon maintaining biological linkages, supporting the natural processes (like hydrology) that shape wetland habitat, and preventing fragmentation of wetland habitats. Small wetlands strategically located between other wetlands may provide important biological links between other, higher quality wetlands. Wetlands adjacent to habitat networks also are especially critical to wildlife functions and should receive special consideration in planning land use.

- E-138      Areas of native vegetation that connect wetland systems should be protected. Whenever effective, incentive programs such as buffer averaging, density credit transfers, or appropriate nonregulatory mechanisms shall be used.**
- E-139      The unique hydrologic cycles, soil and water chemistries, and vegetation communities of bogs and fens shall be protected through the use of incentives, acquisition, best management practices, and implementation of the King County Surface Water Design Manual to control and/or treat stormwater within the wetland watershed.**
- E-140      Public access to wetlands for scientific, recreational use, and traditional cultural use is desirable, providing that public access trails are carefully sited, sensitive habitats and species are protected, and hydrologic continuity is maintained.**
- E-141      Regulatory approaches for protecting wetland functions and values, including the application of wetland buffers, should consider wetland functions and values, intensity of surrounding land uses, and basin conditions. King County should continue to review wetland research and evaluate the need for changes in its wetland protection programs.**
- E-142      Enhancement or restoration of degraded wetlands may be allowed to maintain or improve wetland functions and values provided that all wetland functions are evaluated in a wetland management plan, and adequate monitoring, code enforcement and evaluation is provided and assured by responsible parties. Restoration or enhancement must result in a net improvement to the functions of the wetland system. Technical assistance to small property owners should be considered.**
- E-143      Alterations to wetlands may be allowed to:**
- a. Accomplish a public agency or utility development;**
  - b. Provide necessary utility, stormwater tightline and road crossings; or**
  - c. Avoid a denial of all reasonable use of the property, provided all wetland functions are evaluated, the least harmful and reasonable alternatives are pursued, affected significant functions are appropriately mitigated, and mitigation sites are provided with monitoring.**

When adverse impacts cannot be avoided, compensatory mitigation may be allowed. This means the replacement of project-induced losses of wetland functions and values will be permitted through wetland

creation, restoration or enhancement. The county recognizes that, especially in the Urban Growth Area, allowing alteration of small Category IV wetlands in exchange for compensatory mitigation contributes to a larger connected wetland system and may achieve greater resource protection.

- E-144      A small Category IV wetland that is less than 2,500 square feet and that is not part of a wetland complex may be altered to move functions to another wetland on site as part of an approved mitigation plan.**
- E-145      Mitigation sites should replace or augment the functions and values to be lost as a result of the project proposal. Wetland mitigation proposals should be approved if they would result in improved overall wetland functions and values within a drainage basin. All wetland functions and values should be considered. Mitigation sites should be located strategically to alleviate habitat fragmentation, and avoid impacts to and prevent loss of farmable land within Agricultural Production Districts.**
- E-146      Mitigation projects should contribute to an existing wetland system or restore an area that was historically a wetland. The goal for these mitigation projects is no net loss of wetland functions and values within a drainage basin.**
- E-147      Land used for wetland mitigation should be preserved in perpetuity. Monitoring and maintenance in conformance with King County standards should be provided by the project proponent until the success of the site is established.**

Mitigation banks are a form of regional compensatory mitigation, with the goal providing greater resource protection and benefit to the public. A mitigation bank allows for the consolidation of multiple, small mitigation projects into a large-scale wetland complex, resulting in economies of scale in planning, implementation and maintenance. Consolidation also can result in wetlands of greater value because of their size and the commitment to long-term management. Mitigation banking allows a project proponent to generate bank credits by contributing to the creation or restoration of the bank site.

- E-148      The county in partnership with jurisdictions and interested parties should implement the wetland mitigation banking program.**
- E-149      Creation of wetland mitigation banks is not allowed in the Agricultural Production District when the purpose is to compensate for filling wetlands for development outside the APD.**

Floodplains are lands adjacent to lakes, rivers and streams that are subject to periodic flooding. Floodplains naturally store flood water, protect water quality and are valuable for recreation, agriculture and fish and wildlife habitat. Floodplains also provide a deposition zone for sediments mobilized by rivers and streams. Wetlands are often an integral part of floodplains. Floodplains are designated based on the predicted frequency of flooding for a particular area. For example, a 100-year floodplain is a land area that has a one percent probability of experiencing flooding in any given year.

Development can reduce the floodplain's ability to store and convey floodwaters, thereby increasing the velocity and depth of floodwaters in other areas. In addition, floodplain development often occurs at the expense of important fish and wildlife habitat. King County has adopted the Flood Hazard Reduction Plan to provide guidance for decisions related to land use and flood control activities.

- E-150      The existing flood storage and conveyance functions and ecological values of floodplains, wetlands, and riparian corridors shall be protected, and should, where possible, be enhanced or restored.**
- E-151      King County's floodplain land use and floodplain management activities shall be carried out in accordance with the King County Flood Hazard Reduction Plan.**

Protecting ground water is an important regional issue because ground water provides approximately 30 percent of the water used in King County. The natural hydrologic system can be altered by development practices and overuse of the aquifer. The result may be depletion of aquifers. Ground water is also subject to contamination from human activity. Once a source of ground water is contaminated it may be lost forever. The cost of protection is considerably less than the cost of remediation and replacement.

- E-152** King County shall identify areas in unincorporated King County that are considered Critical Aquifer Recharge Areas and maintain a map that designates these areas. The county shall update this map periodically with new information from adopted groundwater and wellhead protection studies and other relevant sources.
- E-153** King County should protect the quality and quantity of ground water countywide by:
- a. Implementing adopted Groundwater Management Plans;
  - b. Reviewing and implementing approved Wellhead Protection Programs in conjunction with cities, state agencies and groundwater purveyors;
  - c. Developing, with affected jurisdictions, best management practices for development and for forestry, agriculture, and mining operations based on adopted Groundwater Management Plans and Wellhead Protection Programs. The goals of these practices should be to promote aquifer recharge quality and to strive for no net reduction of recharge to groundwater quantity; and
  - d. Refining regulations to protect Critical Aquifer Recharge Areas and well-head protection areas.
- E-154** King County should protect groundwater recharge quantity by promoting methods that infiltrate runoff where site conditions permit, except where potential groundwater contamination cannot be prevented by pollution source controls and stormwater pretreatment.
- E-155** In making future zoning and land use decisions which are subject to environmental review, King County shall evaluate and monitor groundwater policies, their implementation costs, and the impacts upon the quantity and quality of ground water. The depletion or degradation of aquifers needed for potable water supplies should be avoided or mitigated, and the need to plan and develop feasible and equivalent replacement sources to compensate for the potential loss of water supplies should be considered.
- E-156** King County should protect ground water in the Rural Area by:
- a. Preferring land uses that retain a high ratio of permeable to impermeable surface area and that maintain or augment the infiltration capacity of the natural soils; and
  - b. Requiring standards for maximum vegetation clearing limits, impervious surface limits, and, where appropriate, infiltration of surface water. These standards should be designed to provide appropriate exceptions consistent with Policy R-231.
- E-157** King County shall use the Vashon-Maury Island Rapid Rural Reconnaissance Report, the ongoing Vashon-Maury Island Water Resources Evaluation and other studies to direct appropriate policy and planning actions that may be necessary to protect the groundwater and surface water resources. Pending completion and implementation of the evaluation and studies, applicants for new on-site sewage disposal permits on Vashon-Maury Islands shall be required to demonstrate the following:
- a. That the location of the on-site sewage disposal system is not within 200 feet of the documented boundaries of upper-aquifer groundwater contamination or a surface water body or stream;

- b. That the new on-site sewage disposal system is designed to replace an existing disposal system and is likely to reduce impacts to ground and surface waters; or
- c. That, if the size or features of a parcel make it infeasible to satisfy the 200-foot setback provided in subsection (a) above, the proposed onsite sewage disposal system uses the best available technology to reduce potential impacts to ground and surface waters. In such circumstances, the county may require periodic monitoring.

#### **D. Erosion and Landslide Hazards**

King County is located on the active, tectonic Pacific "Ring of Fire," which is characterized by numerous, dynamic geologic processes that include frequent earthquakes and recurring volcanic eruptions. The relatively recent glacial history has left numerous steep and unstable hillsides throughout the county. Because of these steep and unstable hillsides, many areas of the county are prone to naturally occurring landslides and tree falls. Snow avalanches are also a common occurrence in the Cascade Mountains in Eastern King County. Often times the result of these naturally occurring events can be beneficial to the environment, by providing gravel and woody debris in streams and rivers, and continuing the process of natural regeneration. Salmon need gravel for spawning and in-stream debris for cover and to provide shade and regulate temperature. King County must balance the positive benefits of these natural occurrences with any adverse impacts that pose a threat to public health and safety. The county must also strike a balance between allowing naturally occurring landslides and erosion, and the need to prevent the unnatural acceleration of landslides and erosion due to development activities.

Coal mines have created additional areas of subsidence and instability in addition to those which occur naturally. When human activity occurs in areas subject to such active geologic processes, the potential consequences to life, property and environmental integrity can be enormous. If geologic processes are recognized and appropriately addressed in the course of development activities, adverse consequences can be substantially reduced if not completely eliminated. King County maintains inventories and maps of geologic hazards in the King County Sensitive Areas Map Folio.

##### **1. Erosion Hazard Areas**

Virtually any area in King County can experience soil erosion if subjected to inappropriate grading and construction practices. The U.S. Department of Agriculture Soil Conservation Service has identified certain soil types in King County as being especially subject to erosion, if disturbed. The approximate extent of these areas is shown in the *King County Sensitive Areas Map Folio*. These Erosion Hazard Areas may not be well suited to high-density developments and intensive land uses because of the sensitivity of these soils to disturbance.

- E-158      Grading and construction activities shall implement erosion control best management practices and other development controls as necessary to reduce sediment and pollution discharge from construction sites to minimal levels.**
- E-159      Land uses permitted in Erosion Hazard Areas shall minimize soil disturbance and should maximize retention and replacement of native vegetative cover.**
- E-160      Slopes with a grade of 40 percent or more shall not be developed unless the risks and adverse impacts associated with such development can be reduced to a nonsignificant level. No-disturbance zones shall be designated where basin plans identify the need to prevent erosion damages in areas that are extremely sensitive to erosion impacts. Properly designed stormwater tightlines may be allowed within designated no-disturbance zones.**

Vegetation is an important component of the natural environment. This general term refers to all plant life growing at, below or above the soil surface. It includes trees, shrubs, herbs, grasses and aquatic plants.

Vegetation, especially forests, provides many significant ecological functions. Vegetation absorbs, filters and slows surface water flow. This is particularly important over aquifer recharge areas. Native vegetation also provides wildlife habitat to which native species are well adapted. Forests are key components in atmospheric cycles; they absorb carbon dioxide, produce oxygen and filter particulate matter. Additionally, they absorb noise and are aesthetically pleasing.

Noxious weeds are nonnative invasive plants that pose a threat to health and safety, agriculture, wildlife, wetlands and recreational areas. They tend to spread in areas that have been disturbed by urban development and agriculture and are difficult to eradicate once they become established. Without natural predators, some noxious weeds can displace native plant communities, reducing plant diversity. Invasive plants also decrease the quality of wildlife habitats, reduce visual quality, and increase maintenance and production costs for natural resource managers and farmers.

- E-161      King County should protect native plant communities by encouraging management and control of nonnative invasive plants, including aquatic plants. Environmentally sound methods of vegetation control should be used to control noxious weeds.**
- E-162      Through training and other programs, King County should actively encourage the use of environmentally safe methods of vegetation control. Herbicide use should be minimized. King County should be a good steward of public lands and protect water quality, by reducing the use of insecticides, herbicides and fungicides through the use of integrated pest and vegetation management practices.**
- E-163      The use of native plants should be encouraged in landscaping requirements and erosion control projects, and in the restoration of stream banks, lakes, shorelines, and wetlands.**
- E-164      In response to watershed-based salmon conservation Water Resource Inventory Area plans and as part of King County's continued basin planning and stewardship programs, King County may adopt vegetation retention goals for specific drainage basins. These goals should be consistent with Policy R-232, as applicable. The county should adopt incentives and regulations to attain these goals, and the county should monitor their effectiveness.**

## **2.      Landslide and Avalanche Hazard Areas**

Certain hillsides in King County are either naturally unstable or susceptible to instability when disturbed. These hillsides contain slopes greater than 15 percent, are underlain by impermeable soils, and are subject to seepage. They also include areas that have experienced landslides in the past and have slopes that are being undermined by stream or beach erosion. Construction in these areas is expensive and difficult. Landslides on such slopes following development can result in enormous public and private costs and severe threats to human health and safety. Such landslides can also cause severe natural resource damage.

Many of the mountainsides in the Cascade Range in Eastern King County are subject to snow avalanches during the winter. Such avalanches are destructive and can be deadly. King County supports all efforts to monitor and share information regarding avalanche dangers and to alert the public of those dangers.

- E-165      Avalanche or Landslide Hazard Areas should not be developed unless the risks and adverse impacts associated with such development can be reduced to a nonsignificant level. Development proposed in or adjacent to avalanche or landslide hazard areas shall be adequately reviewed and mitigated to ensure development**

**does not increase landslide or erosion hazards that would adversely impact downstream properties or natural resources.**

### **3. Coal Mine Hazard Areas**

King County has a long and varied history of underground and surface coal mining. Some coal mining was conducted by large, well-capitalized mining companies which used methods such as detailed underground and surface mapping and protection of surface improvements. Other mines were small operations or remining operations that sought to maximize coal extraction with less regard for surface impacts or mapping. Some intensively developed areas of King County are located over abandoned underground coal workings, including Talbot Hill and the north Benson Hill of Renton, the Spring Glen area around Cascade Vista, East Fairwood, Black Diamond, southwest Issaquah, and the Newcastle/Coal Creek area.

The greatest dangers to people, wildlife and surface facilities typically exist around mine portals, timber chutes, air shafts, and workings which have collapsed to the surface. Other areas were deep mined by "room and pillar" mining techniques in which "pillars" of coal were left to provide support for the mining of adjacent "rooms." Once abandoned, pillars would collapse and rooms of mined-out coal would fill with collapsed roof material, coal debris and water. Regional downwarping of these areas was generally not observable and usually happened in the early years following mining of a section. Deep mined areas with a high ratio of overburden/cover-to-void usually present no hazards for surface development. However, areas with low overburden/cover-to-void ratio present higher risks and may require more advanced investigations and construction techniques for development. Mine portals, timber chutes, airshafts, and workings which have collapsed to the surface require the greatest need for detailed engineering studies to ensure that these sites are safe for new, productive use.

**E-166      King County encourages the elimination of coal mine hazard areas and will work with public and private property owners and the Office of Surface Mining, Reclamation, and Enforcement to eliminate hazards and return lands to their highest productive uses. Land use plans and development activities should reflect the potential hazards in these areas. Residential, commercial, and industrial development may occur in coal mine hazard areas following study and engineering reports which detail the extent of the hazards, if any, and mitigation. Significant hazards associated with abandoned coal mining workings should be eliminated or mitigated so the site is safe using appropriate criteria to evaluate the proposed subsequent use. King County recognizes that most areas underlain by deep underground mining may be suitable for new development. Landowners and their consultants may be required to provide studies and reports with recommendations from licensed, professional engineers. Proposed surface facilities over some hazard areas may need to incorporate special design and performance tolerances for structures and infrastructure improvements. The location and declassification of coal mine hazard features should be shown on recorded plat maps or site plans of the property. When new information regarding the location of coal mine hazard areas is discovered, it should be added to or deleted from existing maps and databases that record coal mine hazard area information.**

King County is an earthquake-prone region subject to ground shaking, seismically induced landslide and liquefaction of soil. Areas with low-density soils are likely to experience greater damage from earthquakes. Areas in King County with a high potential for seismic induced subsidence, landslide, and other damages are shown in the *King County Sensitive Areas Map Folio* under seismic and landslide hazard areas.

**E-167      In areas with severe seismic hazards, special building design and construction measures should be used to minimize the risk of structural damage, fire and injury to occupants and to prevent post-seismic collapse.**

- E-168      King County should support efforts to model the effects of a mudflow comparable to the prehistoric mudflow which occurred in the White River drainage basin.**

## **E.      Fish and Wildlife**

It is King County's goal to conserve fish and wildlife resources in the county and to maintain countywide biodiversity. This goal may be achieved through implementation of several broad policy directions that form an integrated vision for the future. Each of the pieces is necessary for the whole to be successful. The policy objectives are to 1) identify and protect critical fish and wildlife habitat conservation areas, 2) link those critical habitat areas and other protected lands through a network system, and 3) integrate fish and wildlife habitat and conservation goals into new and existing developments. Conservation of biodiversity is necessary if wildlife benefits currently enjoyed by residents of the county are to be enjoyed by future generations.

- E-169      The county shall strive to maintain the existing diversity of species and habitats in the county. In the Urban Growth Area, King County should strive to maintain a quality environment which includes fish and wildlife habitats that support the greatest diversity of native species consistent with the density objectives. The county should maximize wildlife diversity in the Rural Area.**
- E-170      Fish and wildlife should be maintained through conservation and enhancement of terrestrial, air, and aquatic habitats.**
- E-171      Habitats for species which have been identified as endangered, threatened, or sensitive by the state or federal government shall not be reduced and should be preserved. In the Rural Area and Natural Resource Lands, habitats for candidate species identified by the county, as well as species identified as endangered, threatened, or sensitive by the state or federal government shall not be reduced and should be preserved.**

The Growth Management Act requires jurisdictions to designate Fish and Wildlife Habitat Conservation Areas for protection. The Washington Administrative Code (WAC) sets out guidelines that jurisdictions must consider when designating these areas. As set forth in the WAC guidelines, Fish and Wildlife Habitat Conservation Areas include:

- a. Areas with which endangered, threatened, and sensitive species have a primary association;
- b. Habitats and species of local importance;
- c. Commercial and recreational shellfish areas;
- d. Kelp and eel grass beds; herring and smelt spawning areas;
- e. Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat;
- f. Waters of the state;
- g. Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity; or
- h. State natural area preserves and natural resource conservation areas.

It is important to note that for some species, mere presence is not considered significant. Significant habitats, for some species, are those areas that may be limited during some time of the year or stage of the species life cycle.

King County has reviewed these guidelines and has developed policies E-172 through E-176 that address the various species included in the WAC guidelines. These policies recognize the tiered listing of these species and their habitats as defined by the United States Fish and Wildlife Service and the Washington State Department of Fish and Wildlife. These policies also recognize the need to regularly review the information developed on species and habitats and amend the tiered listing as appropriate.

- E-172** King County shall designate and protect, through measures such as regulations, incentives, capital projects or purchase, the following Fish and Wildlife Habitat Conservation Areas found in King County:
- a. Habitat for federal or state listed Endangered, Threatened or Sensitive species;
  - b. Habitat for Salmonids of Local Importance: kokanee/sockeye/red salmon, chum salmon, coho/silver salmon, pink salmon, coastal resident/searun cutthroat, rainbow trout/steelhead, bull trout, Dolly Varden, and pygmy whitefish, including juvenile feeding and migration corridors in marine waters;
  - c. Habitat for Raptors and Herons of Local Importance: osprey, black-crowned night heron, and great blue heron;
  - d. Commercial and recreational shellfish areas;
  - e. Kelp and eelgrass beds;
  - f. Herring, sand lance and smelt spawning areas;
  - g. Wildlife habitat networks designated by the county, and
  - h. Riparian corridors.

King County shall also protect the habitat for the red-tailed hawk and for candidate species, as listed by the Washington Department of Fish and Wildlife, found in King County outside of the Urban Growth Area.

- E-173** King County should protect the following species of local importance, as listed by the Washington Department of Fish and Wildlife or listed by King County, on lands outside of the Urban Growth Area, where they are likely to be most successful. Protection should be accomplished through regulations, incentives or purchase.

Species of local importance are:

- a. Mollusks – Freshwater mussel, Geoduck clam and Pacific oyster;
- b. Crustaceans – Dungeness crab and Pandalid shrimp;
- c. Echinoderms – Red urchin;
- d. Fish – White sturgeon, Pacific herring, channel catfish, longfin smelt, surfsmelt, Pacific cod, Pacific whiting, black rockfish, copper rockfish, quillback rockfish, yelloweye rockfish, lingcod, Pacific sand lance, English sole, and rock sole;
- e. Birds – Trumpeter swan, Tundra swan, Snow goose, Band-tailed pigeon, Brant, Harlequin duck, Blue grouse, Mountain quail, and Western bluebird; and
- f. Mammals – Marten, mink, Columbian black-tailed deer, elk, and mountain goat.

- E-174** King County should protect the following priority habitats listed by the Washington Department of Fish and Wildlife that are not otherwise protected by policies and codes. Protection should be accomplished through regulations, incentives or purchase. Priority habitats are: caves, cliffs, consolidated marine/estuarine shorelines, estuary, old growth/mature forest, unconsolidated marine/estuarine shorelines, snag-rich areas, and talus slopes.

- E-175** Development proposals should be assessed for the presence of species of local importance. A comprehensive assessment should follow a standard procedure or guidelines and shall occur one time during the development review process.

- E-176** King County should regularly review the Washington State Department of Fish and Wildlife's list of Priority Species and other scientific information on species of local importance, and evaluate whether any species should be added to or deleted from the list in Policies E-173 and E-174. Any additions or deletions should be made through the annual amendment process for the comprehensive plan.



Existing buffer requirements for streams and wetlands are not intended to, and do not, always adequately protect wildlife resources in those sensitive areas. Areas with critical wildlife resources may need larger buffers to protect the resource.

- E-177      Stream and wetland buffer requirements may be increased to protect species of local importance, as listed in this chapter, and their habitats, as appropriate. Whenever possible, density transfers and/or buffer averaging should be allowed.**

Salmon are particularly important because of their significance to local and regional character, federally recognized tribes and the fisheries industry. Several salmon stocks within King County and other areas of Puget Sound are in a serious state of decline. Several salmon stocks within King County have been or are about to be listed under the Endangered Species Act. The most effective way to protect and enhance native fish populations is through protection of those river and stream channels, riparian corridors, lakes, wetlands, headwaters and watersheds that provide or impact spawning and rearing habitat, food resources and fish passage. Intermittent streams also can be critical to native fish populations. Hatcheries and other artificial propagation facilities that are managed to protect the abundance, productivity, genetic diversity, and spatial distribution of native salmon remain critical to maintaining sustainable salmon stocks and harvest opportunities while habitat protection and restoration measures for salmon are implemented.

- E-178      King County should protect salmonid habitats by ensuring that land use and facility plans (transportation, water, sewer, electricity, gas) include riparian and stream habitat conservation measures developed by the county, cities, federally recognized tribes, service providers, and state and federal agencies. Project review of development proposals within basins that contain hatcheries and other artificial propagation facilities that are managed to protect the abundance, productivity, genetic diversity, and spatial distribution of native salmon and provide harvest opportunities should consider significant adverse impacts to those facilities.**

Protection of isolated blocks of habitat will not adequately protect wildlife in King County. Critical wildlife habitats and refuges need to be connected across the landscape through a system of habitat networks. Some areas may be important because they connect other areas together.

Network width is related to requirements of desired wildlife species, length of network segment and other desired uses within the network. Wider corridors will be required for larger species if the distance between refuges is great or if multiple uses, such as public access and trails, are desired. Since it may not be possible to protect wide corridors in the Urban Growth Area, it may not be possible to accommodate larger wildlife species in all areas. Networks will address some of the problems of habitat fragmentation for smaller species within the Urban Growth Area.

Potential linkages are identified on the Wildlife Network and Public Ownership Map. Open spaces set aside during subdivision of land should be located to make connections with larger offsite systems. This approach will also benefit other open space goals.

- E-179      Dedicated open spaces and designated sensitive areas help provide wildlife habitat. Habitat networks for threatened, endangered and priority species of local importance, as listed in this chapter shall be designated and mapped. Habitat networks for other priority species in the Rural Area should be designated and mapped. Planning should be coordinated to ensure that connections are made with adjacent segments of the network. King County should provide incentives for new development within the networks to incorporate design techniques that protect and enhance wildlife habitat values.**

**King County shall also protect the habitat for candidate species, as listed by the Washington Department of Fish and Wildlife, found in King County outside of the Urban Growth Area.**

- E-180      King County should work with adjacent jurisdictions, state and federal governments and federally recognized tribes during development of land use plans, Water Resource Inventory Area plans, and site development reviews to identify and protect habitat networks at jurisdictional boundaries.**

A key element in a comprehensive wildlife protection program is the integration of wildlife and habitats into developments of all types. Protection of many types of wildlife does not have to be at odds with many types of development. Urban multifamily projects, industrial developments, new school facilities and rural open space projects all provide opportunities to enhance wildlife amenities. Residential developers and businesses have been able to use wildlife in marketing strategies to attract more potential homeowners, renters and quality employees.

Techniques such as minimizing clearing during site preparation, using native plant species in required buffers, landscaping, using bridges rather than culverts to cross streams and innovative site design can be used to promote wildlife and minimize problems with nuisance wildlife. Other plan elements, such as open space, road system design and housing density, also have related impacts on the remaining wildlife values that must be considered.

Benefits to wildlife are enhanced if screening and landscaping is composed of native vegetation. Retention of natural vegetation can provide the same wildlife and aesthetic benefits at a lower cost.

- E-181      New development should, where possible, incorporate native plant communities, both through preservation of existing native plants into the site plan, and addition of new native plants.**
- E-182      The county should be a good steward of public lands and should integrate fish and wildlife habitats into capital improvement projects whenever feasible. Fish and Wildlife Habitat Conservation Areas should be protected and where possible, enhanced as part of capital improvement projects.**
- E-183      The county should promote voluntary wildlife habitat enhancement projects by private individuals and businesses through educational and incentive programs.**

## **F.      Soils and Organics**

Soils play a critical role in the natural environment. Healthy soils keep disease-causing organisms in check, recycle and store nutrients, and provide an important medium for air and water to pass through. The properties of a healthy soil are similar to those of a sponge, faucet and filter. They naturally regulate the flow of water, bind and degrade pollutants. The presence of millions of macro and microorganisms in soil creates a "vibrant soil culture" where organic material is consumed and air and water are retained. Nutrients are made available to plants to allow healthy root growth and oxygen generation.

Human activity often causes soil compaction, removal and erosion of healthy, native soils. Fewer organisms are present in disturbed soils. The resulting decrease in organic matter inhibits the soil's ability to hold water, which increases surface water runoff. In addition, plants can not thrive in disturbed soils because of the lack of nutrients. This, in turn, causes people to use more chemical fertilizers, pesticides, and water to induce plant growth.

Increasing the organic content in disturbed soils can help restore their environmental function. Composted organic materials that might be used include yard debris, food and wood wastes, soiled paper, biosolids and/or livestock wastes, but not fly ash from industrial smokestacks. Benefits of

incorporating composted organic materials in soils include: improved stream habitat, healthier plants, and closing the recycling loop for organic materials.

Organic soil content can be increased during the development process. Typically, in a new development, topsoil is removed, and then later replaced. Developers can incorporate composted organic materials during the construction process by replacing removed topsoil with organics in areas to be landscaped to mitigate the impacts of development.

**E-184      Conservation of native soils should be accomplished through various mechanisms to ensure soils remain healthy and continue to function as a natural sponge and filter, minimizing erosion and surface water runoff. Native soils should be retained on site and reused on site to the maximum extent possible.**

**E-185      Organic matter should be used in disturbed soils, such as those found in developed areas, and shall be increased through various mechanisms.**

Organics comprise a large portion of the waste generated by King County residences, businesses and farms. This organic waste stream requires significant solid waste, farm management, and wastewater treatment resources. Many of these “waste materials” (yard debris, food and wood waste, soiled paper, biosolids, and agricultural livestock wastes), can be recycled and reused to provide numerous uses that are beneficial to the environment and the economy.

King County has a long history of resource conservation and waste recycling. Programs have successfully captured organic materials for beneficial use such as yard debris, recycling and biosolids applications to farms, forests and composting. However, large volumes of yard debris and food scraps continue to be thrown away in the landfill. Significant volumes of livestock waste generated in the suburbs and rural areas are inadequately managed, which can adversely impact water quality and fish habitat.

Although efforts are underway to increase the amount of organic materials that are recycled, the region still lacks the capacity to process all of these materials. Along with its efforts to promote beneficial use of these products, King County is working with organic material processors and others to try and increase the processing capacity in the region. The challenge will be for King County to secure funding sources to ensure that sufficient processing capacity is in place to handle a variety of organic waste materials.

**E-186      King County should implement programs to improve availability and markets for organic materials for soils that have been disturbed by new and existing developments.**

**E-187      King County shall regard the region's organic waste materials as resources which should be reused as much as possible, and minimize the disposal of such materials.**

**E-188      King County shall identify long-term options for expanding the organic waste material processing capacity in the county.**

King County seeks to divert as much material as possible from disposal to reduce overall costs of solid waste management, conserve resources, protect the environment, and strengthen the county's economy (see Chapter 7, Facilities and Utilities, Policy F-255). In many cases, organic materials can be recycled into a beneficial, highly valued resource helping to meet these diversion goals. Beneficial uses of organic materials include, but are not limited to, the following:

King County recognizes that in most cases, the best management method for yard debris and livestock wastes is to compost it on the property where it is generated. Examples of residential onsite yard debris management techniques include grasscycling (leaving the grass on the lawn when it is cut) and backyard composting.

**E-189      King County shall promote and encourage the beneficial use of organic materials, including but not limited to their use in the following activities: agriculture and silviculture; road, park and other public project development; site development and new construction; restoration and remediation of disturbed soils; nursery and sod production; and landscaping. Organic materials do not include fly ash.**

**E-190      King County agencies shall use recycled organic products, such as compost, whenever feasible.**

Biosolids are the nutrient rich organic product from the wastewater treatment process which can be recycled as a soil amendment. At King County's wastewater treatment plant, solids are removed from the wastewater and treated in large digesters where the organic solids are stabilized, reducing the volume by half. After digestion, a portion of water is removed, leaving the semisolid material ready for recycling.

The Biosolids Management Program emphasizes beneficial use of the resource and pursues environmental stewardship through diverse public-private partnerships. One hundred percent of county biosolids are beneficially used through the forestry and agriculture programs. A portion of the biosolids are composted as a Class A product.

**E-191      King County should explore ways to beneficially use biosolids, whenever feasible, locally.**

Supporting agriculture is a key growth management strategy and vital to quality of life for King County residents (see Chapter 3: "Rural Legacy and Natural Resources Lands"). However, improper livestock management practices can have significant adverse impact on surface water, ground water and air quality.

On-farm composting as a method of managing livestock waste and other organic waste materials is becoming an important waste management strategy for farmers. Benefits of on-farm composting include:

- Additional revenue from the sale of compost;
- Reduced costs for water, fertilizers and pesticides, due to reduced water usage and reduced reliance on fertilizers and pesticides;
- Reduced impacts to surface waters; and
- Increased crop yields.

King County has approximately 200 commercial farms and 10,000 noncommercial farms in cities as well as unincorporated areas. King County's Livestock Management Ordinance, Ordinance 11168 adopted in December 1993, requires livestock owners to manage livestock waste so that it minimizes any impacts to streams. The Livestock Management Ordinance requires the preparation of farm plans to be developed jointly by farmers and the King Conservation District to assist in reducing water pollution from their operations. The conservation district provides technical assistance and education to agricultural landowners on how to implement best management practices for federal, state and local water quality regulations. These best management practices include slurry tanks and manure lagoons, the installation of fencing to keep stock from streams and wetlands, and development of plans for livestock manure storage facilities in accordance with the Sensitive Areas Ordinance.

**E-192      King County shall develop alternatives to improve onsite and offsite management of livestock wastes and recommend strategies to integrate processing livestock wastes with other organic waste materials. These strategies should be consistent with the King County Comprehensive Solid Waste Management Plan, including but not limited to on-farm composting and land application of processed yard debris. Alternative strategies for onsite and offsite management of livestock wastes shall be based on farm management plans, which protect water quality in streams and wetlands. Solid waste management and water quality programs should be developed to prevent liquid farm wastes from contaminating our watersheds.**

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## II. Endangered Species Act

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In March 1999, The National Marine Fisheries Service (NMFS) listed the chinook salmon as "threatened" under the Endangered Species Act (ESA). In December 1999, the U.S. Fish and Wildlife Service (USFWS) listed the Puget Sound and Coastal Bull trout as threatened under the ESA. It is anticipated that listing of other salmonid species may follow in the near future.

The listing of a species under the act is cause for great concern, because Wild Pacific salmon have great environmental, cultural, economic, recreational and symbolic importance to the Puget Sound region. It is King County's goal to ensure long-term protection of our salmon resources to harvestable levels for today and tomorrow, with the least economic impact possible. Successful restoration and maintenance of healthy salmon populations will require time, money and effort, and collaboration with federal, state, tribal and local governments, as well as businesses, environmental groups, and citizens.

In accordance with the ESA, National Oceanic Atmospheric Administration (NOAA) Fisheries issued regulations deemed necessary to provide for the conservation of Puget Sound chinook salmon and other West Coast salmonids. This rule, commonly referred to as a 4(d) rule, legally establishes the protective measures that are necessary and advisable to provide for conservation of a listed species. The rule also makes it a violation of the ESA for any person, government, or other entity to "take" a threatened species. "Take" under the ESA includes altering habitat of a listed species such that it causes harm.

Local governments in the Puget Sound region, in cooperation with state and tribal governments and other major stakeholders, established the Tri-County salmon conservation coalition to identify early actions and develop long-term conservation strategies. The early actions focus on protecting salmon habitat in order to preserve options for recovery. The long-term conservation strategy is being developed at the Watershed Resource Inventory Area (WRIA) level. The boundaries of WRIs are defined under state regulations, and generally adhere to the watershed boundaries of major river or lake systems. King County is participating in the development Water Resource Inventory Area plans for WRIA 8 (Cedar/Sammamish Watershed), WRIA 9 (the Green/Duwamish Watershed), WRIA 7 (the Snohomish/Snoqualmie Watershed), about half of which is in King County, and WRIA 10 (the White/Puyallup Watershed), a small percentage of which is in King County.

- E-201      King County shall continue to participate in the Water Resource Inventory Area planning efforts and in other regional planning efforts, such as the Tri-County salmon conservation coalition and Shared Strategy for Puget Sound, to develop plans for each of the watersheds in King County. These plans shall:**
- a. Focus on early federally listed salmonid species first, take an ecosystem approach to management and seek to address management needs for other species over time;**
  - b. Identify early actions and long-term projects and programs that will lead to information on habitat conditions in King County that can enable the recovery of endangered or threatened salmonids, while maintaining the economic vitality and strength of the region;**
  - c. Address both King County's growth management needs and conservation needs;**
  - d. Be comprehensive and based on best available science as defined in WAC 365-195-905 through 365-195-925;**
  - e. Address water quality, water quantity and channel characteristics;**
  - f. Be developed in coordination with key decision-makers and stakeholders; and**
  - g. Provide for monitoring and adaptive management.**

- E-202** King County has evaluated and will continue to evaluate programs and regulations to determine their effectiveness in contributing to ESA listed species conservation and recovery, and will update and enhance programs and plans where needed including evaluation of the zoning code, the Critical Areas Code, the Shoreline Master Program, the Clearing and Grading Code, the landscaping Code, the Surface Water Design Manual, the flood hazard reduction plan, regional wastewater services plan, best management practices for vegetation management and use of insecticides, herbicides and fungicides, and best management practices for agricultural lands and forest lands under county authority. King County may amend these regulations, plans and best management practices to enhance their effectiveness in protecting and restoring salmonid habitat, using a variety of resources including best available science as defined in WAC 365-195-905 through 365-195-925 and resource documents developed by the Tri-County salmon conservation coalition and the shared strategy.
- E-203** Through the Watershed Resource Inventory Area planning process, geographic areas vital to the conservation and recovery of listed salmonid species shall be identified. King County will evaluate this information to determine appropriate short and long-term strategies, including, but not limited to: designation of Fish and Wildlife Habitat Conservation Areas, development regulations (special district overlays, zoning, etc.) acquisitions, facility maintenance programs, and capital improvement projects.
- E-204** King County may use its authority under the Growth Management Act, including its authority to designate and protect critical areas, such as fish and wildlife habitat conservation areas, to preserve and protect critical habitat listed for salmonid species by developing and implementing development regulations and nonregulatory programs.
- E-205** King County shall, in cooperation with the cities, ensure a no net loss of housing capacity that preserves the ability to accommodate the 2022 growth targets, while pursuing compliance with Endangered Species Act requirements. To achieve this goal, densities shall be increased on buildable lands, consistent with Policy U-463.

## Chapter Five

# Parks, Open Space and Cultural Resources

The quality of life in King County is directly linked to the quality of our region's environment, with its diverse landscapes reaching from Puget Sound to the Cascade Mountains, scenic beauty and the variety of cultural and recreational opportunities that enrich our lives. These vital natural and cultural resources contribute to the physical, mental and emotional well-being of county residents and are integral to attracting employment and business activity.

The policies in this chapter focus on the county's role as a regional leader in acquiring and protecting its system of county-owned parks and other open spaces and in supporting cultural opportunities such as music, theater, ethnic heritage museums, literary activities, public art collections, urban historic districts and rural landmarks.

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# I. Parks, Recreation and Open Space

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The Growth Management Act states that counties are the providers of regional services and local rural services, while cities are the appropriate providers of local urban services. As the regional government, King County manages a regional open space system of parks, trails, natural or ecological areas and working resource lands. While the cities are the managers of local park, trails and open space lands in the Urban Growth Area, King County will continue to be the provider of local park, trails and open space lands in the Rural Area.

Population growth and associated development in recent years have transformed the county's landscape as forested and open lands have been converted to urban uses resulting in the fragmentation of wildlife corridors, riparian habitat and the depletion of working resource lands and open vistas. The policies in this section provide guidance for the open space system of lands the county owns and manages to protect the health of natural systems, provide recreational opportunities, shape community character, and help sustain agriculture and forestry economics. The policies also reinforce the county's focus on linking components of the open space system.

Regional active and multiuse parks serve a countywide population and provide high-quality, highly developed facilities to support multiple events, large group gatherings and special events. Local rural park sites provide for active and passive recreation close to home. Local trails provide recreation, circulation within the local community and access to the regional trail system.

Natural areas and some parks contain undeveloped or undevelopable acreage that remain in a natural or near natural state and support habitat and other ecologically significant attributes. Together these sites enhance environmental and visual quality and meet regional and local rural recreation needs.

**P-101      For the purposes of the King County Open Space system, "Regional Parks" shall mean sites and facilities that are large in size, have unique features or characteristics and serve communities from many jurisdictions, and "local" shall mean sites and facilities that predominantly serve communities in the unincorporated area.**

## **A.      The Regional Open Space System of Parks, Trails, Natural Areas and Working Resource Lands**

The policies in this chapter provide the basis to develop a contiguous open space system, connecting and including active and passive parks, trails, natural areas and working agricultural and forest resource lands. The Open Space System map shows these publicly-owned open space lands and provides the basis for identifying the linkages necessary to strengthen the physical and functional connectivity of the county's open system. The following policies reinforce the importance of the county's open space system, and guide planning and management of appropriate recreational opportunities that best meet regional and local needs, preserve ecologically significant resources and protect working resource lands. Implementation of these policies is guided by the *King County Park, Recreation and Open Space Plan*, adopted in 1996 (and subsequent updates).

**P-102      King County shall be a regional leader in the provision of a regional open space system of parks, trails, natural areas, working resource lands, and flood hazard reduction lands. The regional network of open spaces provides benefits to all county residents including: recreation facilities, conservation of natural and working resource lands, flood hazard protection and related programs, and services.**



**Preservation will include wildlife corridors and riparian habitat, as well as open space areas separating urban and rural areas.**

## **B. Local Parks**

In the Rural Area, the large geographic area and dispersed populations, individual lots, low residential density and economies of site management dictate fewer individual park sites. Nearby regional parks and other open spaces also provide recreational opportunities. King County's role in the Rural Area will reflect rural levels of service.

- P-103 Local parks, trails and other open spaces that complement the regional system should be provided in each community, in Rural Areas, to enhance environmental and visual quality and meet local recreation needs. King County shall provide local parks, trails and other open spaces in the Rural Area.**
- P-104 King County should provide local parks within rural communities with fields and other facilities that provide opportunities for active sports. These facilities shall be in addition to and compatible with King County's regional park system.**

## **C. Components of the Regional Open Space System**

King County's regional open space system contains lands with many functions including active and passive recreation, special purpose sites such as pools and trails; natural areas, including waterways, greenways, and forested areas with educational, scientific, wildlife habitat, cultural or scenic values; working resource lands including agriculture and forest lands; and community-defining systems, including physical and or visual buffers between areas of urban and rural development. Many sites within the open space system serve more than one function, but each site serves a primary role within the system.

### **1. Active Recreation, Multiuse Sites and Trails**

King County's local and regional parks and facilities accommodate a wide range of active and passive recreation activities. Active recreation includes a functional system of highly developed sites with organized, scheduled activities such as soccer and softball. Passive recreation includes activities such as informal play, hiking, walking, jogging and picnicking. Multiuse sites can include a combination of active recreation and passive recreation with less intensely developed facilities and natural areas. The Trail System is a major element of the recreation and natural systems and provides recreation and nonmotorized transportation, as well as corridors often used by wildlife.

Regional programs serve a broad spectrum of users. These programs include those not generally viable for individual communities due to site or facility requirements or the unique nature of the offering requiring a broader user base to support them. Educational or interpretive programming promotes appropriate and enjoyable use of the park system. Public awareness of resources and their values builds support and stewardship for the system and its resources.

- P-105 King County shall provide regional parks and recreational facilities that serve users from many neighborhoods and communities. Regional parks include unique sites and facilities that should be equitably distributed.**
- P-106 King County shall complete a regional trails system, linking trail corridors to form a countywide network. King County will continue to primarily own the land necessary for the operation and management of the trail.**
- P-107 King County should facilitate educational, interpretive and aquatic programs on county-owned properties that further the enjoyment, understanding and appreciation of the natural, cultural and recreational resources of the park system and the region.**

- P-108      King County should facilitate and seek regional and national programs and special events at regional sites and facilities.**

## **2.      Natural Areas (Ecological Sites)**

The King County Open Space system includes many sites whose primary purpose is to conserve and restore ecological value. These sites may allow public use that does not harm the ecological resources of the site. These natural areas include many environmental features of King County's landscape, which play a role in protecting a diversity of vegetation and fish and wildlife important to the beauty and character of the region. King County will focus on linking natural areas to create regional open space corridors of greenways and waterways along the major river systems, shorelines, and the Mountains-to-Sound Greenway.

Preserving these areas in partnership with other agencies, private groups and individuals will provide multiple values including environmental and economic benefits of surface water management, aquifer recharge, and fish and wildlife habitat preservation and enhancement.

- P-109      King County will manage its natural areas to protect, preserve and enhance important natural resource habitat, biological diversity, and the ecological integrity of natural systems.**

- P-110      King County shall recognize and protect the natural character and ecological value of its natural areas. These areas are important for preserving fish and wildlife and their habitat, native vegetation, and features of scientific and educational value. Development and public use may be limited to preserve the natural state and reduce disturbance of the natural resources. Site improvements should be focused on providing educational and interpretive opportunities. Public access should be directed to the less fragile portions of a site to ensure continued protection of the ecological resources.**

## **3.      Working Resource Lands**

The county's open space system includes lands that are managed as working farms and forests. The county has purchased several properties with the intention of conserving the resource use on the site. County ownership and management of these lands conserves the resource land base, allowing the resource activity to continue, while contributing to the local rural economy, providing education about agriculture and forestry, and providing passive recreational opportunities on some properties. The county's policies to conserve farmland and encourage agriculture are discussed in Chapter 3.

The Farmland Preservation Program (FPP) is a county program that preserves farmland through the purchase of development rights. The farms in the FPP generally remain in private ownership. The county has purchased a farm outright in few cases, with the intention of reselling the land without the development rights to a private farmer. The county has developed a program to lease farms to small-scale farmers until such time that the property can be resold.

- P-111      Farmland owned by King County shall contribute to the preservation of contiguous tracts of agriculture land and make affordable farmland available for use by small-scale and new farmers.**

- P-112      Farmers leasing properties owned by King County shall use Agricultural best management practices, Integrated Pest Management and other sustainable farming methods.**

- P-113      The use and management of farmlands owned by King County shall be consistent with any requirements imposed by the funding program used to purchase each**

**property and shall serve to meet and enhance the objectives of the King County Agriculture Program.**

One element of the King County Forestry Program is the conservation of forestland through acquisition to allow forest management on the property. The working forests owned by King County are generally very large parcels of land (several hundred acres or more), which support sustainable forest management practices and contribute to the retention of a contiguous forest. These properties contribute to environmental protection, high-quality passive recreation, the public understanding of forestry, and scenic vistas.

- P-114      Forest land owned by King County shall provide large tracts of forested property in the Rural Forest Focus Areas and the Forest Production District (FPD) that will remain in active forestry, protect areas from development or provide a buffer between commercial forestland and adjacent residential development.**
- P-115      Forest land owned by King County shall be used to sustain and enhance environmental benefits, demonstrate progressive forest management and research, and provide revenue for the management of the working forest lands.**
- P-116      Forest land owned by King County shall provide a balance between sustainable timber production, conservation and restoration of resources, and appropriate public use.**

#### **4.      Other Open Spaces**

Preservation of open space in the county is grander than the county system. Large areas of the county are owned and managed by federal agencies, the state, and other local jurisdictions that manage the land for environmental protection, resource production, or a wide range of recreation opportunities. Additionally, open space benefits are often provided by private land owners managing their land in ways that protect the environment, conserve natural resources, or provide open vistas. King County acquires for other reasons, such as flood hazards or providing needed public facilities. These lands can also contribute to open space conservation efforts.

King County has acquired lands and manages facilities along major river and stream systems for the primary purpose of flood plain management and flood hazard protection. Major streams and rivers are vital components of the county's open space system, therefore the flood hazard reduction lands function as critical links in the county's open space network. King County will continue to maintain flood hazard reduction land and facilities within available funding levels. The county will also seek innovative measures for maintaining and improving flood protection, reducing maintenance costs, integrating flood protection and recreational opportunities, and achieving wildlife habitat protection and salmon recovery.

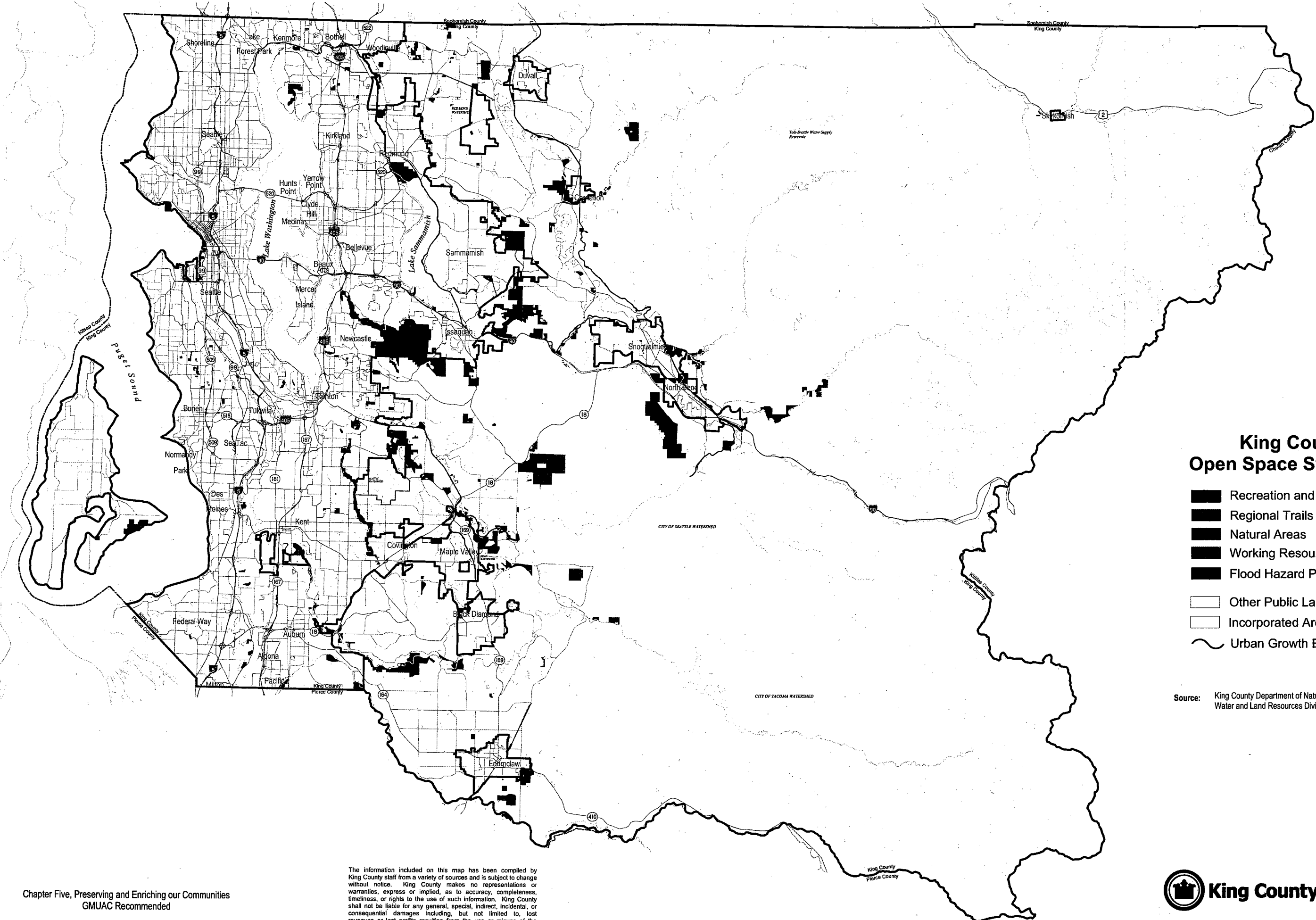
### **D.    Achieving the Open Space System**

Parks and other county-owned open space lands ensure a quality of life today and a legacy to generations of tomorrow. In King County, many types of open spaces and fish and wildlife habitat remain in private ownership and may be subject to future development. To ensure that these lands and resources are protected and to offer an alternative to acquisition, the county offers landowners a wide variety of tools to preserve their property. Policies outlining strategies for using these tools can be found in chapters 3, 4, and 7.

Cooperation, coordination and partnerships with public agencies, private groups and individuals are necessary to develop the regional parks and open space system, to meet existing needs for park and recreation facilities and to accommodate the needs of growth. The Mountains-to-Sound Greenway, along the I-90 corridor, is a successful model for coordination of efforts by public and private entities to protect the backbone of the county's open space system.

King County will achieve the multiple benefits of resource protection and recreation by building partnerships and coordinating with providers and user groups of the parks and open space system. Working together, stewardship can be fostered and these lands and facilities can be enhanced, restored and operated more economically and efficiently to benefit all county residents.

- P-117      King County shall explore incentives, regulations and funding mechanisms to preserve, acquire and manage valuable park and open space lands.**
- P-118      Parks, trails and other open space lands should be acquired and developed to meet adopted standards with a combination of public funds and dedications or contributions from residential and commercial development, based on their service impacts.**
- P-119      Open space sites should be acquired when identified in the King County Park, Recreation, and Open Space Plan, adopted in 1996 (and subsequent updates), or when needed to meet adopted local park and recreation standard, or to protect contiguous tracts of working resource lands or ecological resources.**
- P-120      Trails should be acquired when identified in the King County Trails Plan or when identified as part of a community trail network.**
- P-121      King County shall be a leader in establishing partnerships with cities, adjacent counties, federally recognized tribes, state and federal agencies, school and special purpose districts, community organizations, nonprofit organizations, land owners and other citizens. The county and these partnerships should work to promote and protect all aspects of environmental quality and complete the regional parks and open space system, linking local and regional lands and facilities.**
- P-122      Decisions on acquisition and development of park, trail, and other open space sites should consider funding needs for long term maintenance and operations.**
- P-123      Open space lands shall be classified to identify the primary role in the open space system and purpose of acquisition as active recreation, trails, multiuse, natural area or working resource lands. They will be classified as regional or local and the primary role and purpose of the site will be identified.**
- P-124      Lands preserved for public parks or open space should provide multiple benefits whenever possible.**
- P-125      A variety of measures should be used to preserve and develop regional and local parks, trails and open space. Measures can include: county funding, partnerships, incentives, regulations, and trades of lands and shared development activities. Where local park districts have been created, King County will work in partnership with the districts to maximize resources and meet community goals.**
- P-126      King County will adopt an entrepreneurial approach to managing and operating the open space system and work aggressively to implement multiple and appropriate strategies to sustain fiscally the open space system.**
- P-127      Management of the regional open space system of Parks, Trails, Natural Areas and Working Resource Lands is guided by the King County Parks, Recreation and Open Space Plan, as adopted in 1996 (and subsequent updates). The plan includes policies on the management of parks and trails, natural areas, and resource lands.**



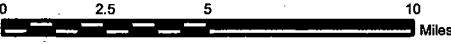
# **King County's Open Space System 2004**

- Recreation and Multi-Use Parks
- Regional Trails
- Natural Areas
- Working Resource Lands
- Flood Hazard Properties
- Other Public Lands
- Incorporated Areas
- Urban Growth Boundary

Source: King County Department of Natural Resources and Parks  
Water and Land Resources Division

The information included on this map has been compiled by King County staff from a variety of sources and is subject to change without notice. King County makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. King County shall not be liable for any general, special, indirect, incidental, or consequential damages including, but not limited to, lost revenues or lost profits resulting from the use or misuse of the information contained on this map. Any sale of this map or information on this map is prohibited except by written permission of King County.

The maps in the King County Comprehensive Plan and its technical appendices are produced with a computer geographic information system. They are reduced in size but available at a larger scale.



- P-128**      **King County shall use park and recreation standards as adopted in the King County Park, Recreation and Open Space Plan, adopted in 1996 (and subsequent updates), as guidelines to evaluate and provide local parks, trails, and recreational services.**
- P-129**      **In the Urban Area, King County shall work in partnership with other jurisdictions to facilitate annexation and transfer of local parks, trails and other open spaces to cities or other providers to ensure continued service to the community.**
- P-130**      **King County should work with cities to share operational and maintenance costs of parks and other open spaces in unincorporated areas in which a substantial portion of the users are from incorporated areas.**

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## II. Cultural Resources

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Cultural resources make a significant contribution to the quality of life in King County. Arts and heritage organizations, public art and historic and archaeological properties contribute to the region's economic vitality, play an essential role in cultural tourism, and contribute significantly to the county's overall quality of life. As King County grows, the need to protect, support and enhance cultural opportunities and resources is essential in order to sustain livability.

King County continues to play an important role in support and guidance for cultural resources in the region. While the creation of the CDA places operational responsibility for cultural resources with that body, the King County Council approves nominations for membership on the Authority Board, participates directly through board membership of three county councilmembers; meets with the CDA board to receive annual reports on progress and discuss plans for the coming year, and similar functions.

In the following policies and discussion, the term "cultural resources" refers to all performing and visual arts events, programs and facilities: public art; heritage events; programs and facilities; and historic properties. The term "historic properties" means all historic buildings, sites, objects, districts, and landscapes, prehistoric and historic archaeological resources, and traditional cultural places.

**P-201      King County shall protect cultural resources and promote expanded cultural opportunities for residents to enhance the region's quality of life and economic vitality.**

**P-202      King County shall support the transmission of the region's cultural legacy, promote cultural education, and encourage the preservation and celebration of cultural diversity and creativity.**

County residents need arts and heritage opportunities that balance regional programs and facilities for attendance with a network of local community opportunities for participation and education. The regional cultural system is comprised of a regional and local infrastructure of cultural organizations, individuals and venues; an interjurisdictional program for historic resource protection; and region-wide enhancement of public places with art works.

**P-203      King County shall support and encourage development of regional cultural organizations, facilities, and services that address a countywide audience or are dedicated to unique and significant cultural themes or disciplines.**

**P-204      King County shall support and encourage community cultural organizations, facilities, and services to provide opportunities for local access and participation by all residents throughout the county.**

### A. Arts

The region's artistic environment parallels its natural features in variety and richness. Its arts organizations, artists and opportunities are widely known and valued for their diversity, excellence and abundance of music, theater, dance, literary activity, and visual arts.

**P-205      King County shall support excellence and vitality in the arts and support opportunities for attendance at and participation in diverse arts and cultural activities throughout the county.**

- P-206        The Cultural Development Authority of King County or its successor organization shall advise the King County Executive and the Council on programs, policies and regulations that support and increase access to the arts.**

## **B.        Historic Preservation**

Preservation of historic properties provides multiple benefits to the region; historic properties maintain a tangible connection with the historic and prehistoric past. They contribute character, diversity and aesthetic value to communities, particularly in times of rapid change. Historic attractions play a significant role in the region's appeal to tourists. Many municipalities do not have sufficient resources to administer an historic preservation program. As a result, the shared history of the region is endangered. Comprehensive and coordinated protection of significant historic properties is necessary in order to ensure that King County's collective history is preserved.

- P-207        King County shall administer a regional historic preservation program to identify, evaluate, protect and enhance, historic properties.**
- P-208        The Landmarks Commission shall advise the King County Executive and the Council on programs, policies and regulations that support and enhance preservation and protection of significant historic properties.**

## **C.        Public Art**

Collectively, public art is a regional resource that enhances community character and diversity, sparks imagination, and provides a direct cultural experience for county residents every day. For new or changing communities, public art is a powerful contributor to local character, sense of place and belonging. Public art can also help mitigate the adverse effects of new development.

- P-209        King County shall provide art in public facilities projects and places to enhance community character and quality of life. Maintenance and conservation shall be a consideration in the development and management of public art. King County undertakings (including public-private partnerships and development authorities) that include public funds or resources, have publicly visible physical components, or require mitigation should include public art. King County should encourage provision of public art in private development projects.**
- P-210        The Cultural Development Authority of King County or its successor organization shall advise the King County Executive and the Council on programs, policies and regulations that support and increase access to public art.**

## **D.        Heritage**

Museums, historical societies, ethnic organizations and other heritage groups, and historians, archivists, folklorists and other heritage specialists enrich community life and provide cultural experiences for county residents and visitors. Without appreciation, preservation and stewardship of local history by heritage specialists, groups and organizations, the county's rich history would be lost.

- P-211        The Cultural Development Authority of King County or its successor organization shall advise the King County Executive and the Council on programs and policies that support and enrich King County's heritage.**
- P-212        King County shall support, preserve and enhance its heritage and shall encourage opportunities for public attendance and participation in diverse heritage activities throughout the county.**



## E. Cooperation

Cultural resource management crosses jurisdictional boundaries and involves countless public and private players throughout the region. The range and complexity of cultural activity in the region requires coordination and cooperation. King County government is uniquely able to provide regional coordination and leadership.

**P-213      King County shall pursue its cultural resource goals by working with residents, property owners, cultural organizations, public agencies, federally recognized tribes, schools and school districts, and others.**

**P-214      King County shall work with cities to protect and enhance historic resources and public art located within city boundaries and annexation areas. The county shall advocate for and actively market its historic preservation services to agencies and cities that could benefit from such services.**

Cultural facilities and services are needed in locations and ways that expand public access, broaden diversity of content and audiences and enhance cultural opportunities for all residents.

**P-215      King County shall encourage shared, multipurpose use of regional and community facilities for cultural activities to maximize their efficient use and to expand public access to cultural opportunities.**

## F. Stewardship of Cultural Resources

Historic preservation is an ongoing activity that requires identification and evaluation of resources, use of a variety of regulatory protection measures and incentives, and attention to long-term preservation, enhancement and interpretation. Land use planning should direct and coordinate patterns of development so as to minimize current and future conflicts with historic resources in urban and rural areas.

**P-216      King County shall encourage land uses and development that retain and enhance significant historic properties and sustain historic community character. County building and zoning codes and other regulations and standards should provide flexibility to accommodate preservation and reuse of historic properties. Zoning actions should take into account the effects of zoning on historic properties.**

Project review can respond to and modify development proposals affecting historic and archaeological resources to eliminate or minimize adverse effects of development or changing land use. King County government can also protect historic resources through careful planning and review of its own undertakings, both direct and indirect. Archaeological resources are particularly sensitive and endangered.

**P-217      King County shall review public and private projects and may condition them in order to protect historic properties. King County agencies shall coordinate with the Historic Preservation Program to provide consistent review and mitigation for projects within unincorporated areas and for county undertakings within cities.**

**P-218      King County shall inventory historic properties in order to guide decision making in resource planning, capital projects, operations, environmental review and resource management.**

**P-219      Archaeological properties shall be identified, evaluated and protected in a consistent and coordinated manner. King County shall establish consistent review and protection procedures and develop centralized professional archaeological staffing.**

Cultural resources are often destroyed through neglect. Maintenance and other management practices that protect historic features and character can assure long-term preservation. Information about the history and significance of a property fosters appreciation and informs owners, users and the public about its value.

King County government can lead by example through stewardship and wise management of its own cultural resources. Historic public buildings and facilities, such as bridges and roads, can be preserved and continue to be used; other historic resources can be converted to public use.

- P-220        All King County agencies shall be stewards of cultural resources under their direct control. Agencies shall identify and assess cultural resources, preserve significant historic properties and public art, and provide public access to them whenever appropriate. Agencies shall collaborate with the Historic Preservation Program to nominate eligible properties for landmark designation.**
  
- P-221        King County shall interpret its cultural resources to enhance their understanding and enjoyment by the public.**
  
- P-222        King County shall acquire and preserve historic resources for use by county and other public agencies and shall give priority to occupying historic buildings whenever feasible.**
  
- P-223        King County shall provide incentives to encourage investment in historic properties and public art. County programs and incentives for land and resource preservation and economic development shall support and be coordinated with cultural resource preservation and provision of public art.**

## Chapter Six

# Transportation

This chapter is based on the land use element as established in this plan. King County envisions a future transportation system that supports the regional land use strategy, which seeks to focus most growth in urbanized areas. King County's goals are to:

- Connect all modes of transportation to form an integrated, balanced system;
- Strengthen the region's economy by moving people and goods efficiently;
- Give individuals and families a range of affordable transportation options; and
- Minimize transportation's adverse effects on the environment.

This chapter is consistent with and meets the requirements of regional and countywide plans and policies that respond to growth management legislation. The Countywide Planning Policies (CPP) have been used to guide the development of the transportation element and to ensure consistency with plans and programs developed by adjacent jurisdictions.

Regional direction for the transportation element is set by the Metropolitan Transportation Plan, Destination 2030 developed by the Puget Sound Regional Council (PSRC). The Metropolitan Transportation Plan is consistent with the region's urban growth strategy, Vision 2020, also developed by the PSRC.

The framework and direction for the development of comprehensive plans is provided by growth management legislation. The transportation element of the King County Comprehensive Plan is consistent with and meets the requirements of growth management legislation.

### Components of the Transportation Element

The Transportation Element of this plan is comprised of five major components. The first is the Transportation chapter, which includes the narrative and policy language. The second is Technical Appendix C of this Plan, which contains the Land Use and Travel Forecast Technical Report, the Arterial Functional Classification Map, and a transportation inventory. The third includes the Transportation Needs Report, which is adopted herein by reference and contains a 20-year financial forecast and a 20-year list of transportation needs, and the Roads Capital Improvement Program, which is also adopted herein by reference. The fourth is the Long-Range Transit Development Plan and the Six-Year Transit Development Plan and Capital Improvement Program, which are also adopted herein by reference. The fifth and last component is the concurrency regulation, which implements the concurrency requirements and is codified at King County Code chapters 14.65 through 14.70.

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# I. Regional System

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## A. Countywide Transportation Service Provider

King County provides countywide transit service and builds and maintains arterials of countywide and regional significance within unincorporated King County. King County also provides contract transportation services to a number of King County cities.

The Growth Management Act fundamentally changed the way King County carries out comprehensive planning, placing special emphasis on transportation by making it unlawful to approve development that fails to meet the test of concurrency. Future development is constrained by King County's ability to finance needed transportation facilities or programs. To limit sprawl, create the desired urban form, and provide some measure of predictability, King County will support comprehensive plan policies by focusing resources in the most efficient and cost effective way.

As a countywide transportation service provider, King County will maintain Metro Transit's public transportation services and work with Sound Transit and other transit agencies to provide seamless, multimodal transit services. King County will cooperate with other local governments and the Washington State Department of Transportation to implement the Regional Arterial Network, improve freight mobility and carry out strategies to maintain the efficiency of freeways and arterials in the region.

In the unincorporated Urban Area, King County will complete the roadway network, add sidewalks, bike lanes and transit facilities as appropriate, and maintain the transportation infrastructure to allow denser development to occur. In the Rural Area, King County will emphasize maintenance and safety rather than increased traffic capacity.

King County International Airport/Boeing Field (KCIA) is an essential element of the county and region's multimodal transportation system. The airport is also a significant employment center and supports over 150 aviation-related businesses including the Boeing Company. The airport is a port-of-entry for international flights and serves regional air carriers, national and regional cargo carriers, corporate aviation, and general aviation aircraft. KCIA is a regulated facility under Federal Aviation Regulation Part 139 of the Federal Aviation Administration (FAA) Code of Federal Regulation (CFR).

- T-101**      **As a countywide transportation service provider, King County establishes policy for transit and for the unincorporated area road system. General and long-range policy shall be established for the road system in the King County Comprehensive Plan and for transit in the Transit Long-Range Policy Framework. The Six-Year Transit Development Plan and the six-year capital improvement program for roads shall also be prepared consistent with these primary policy documents.**
- T-102**      **In addition to involving the general public, transportation plans including any update to the Roads Strategic Plan shall be completed with timely input from the unincorporated area councils and the subarea transportation forums, among other bodies.**
- T-103**      **King County should identify improvements and strategies needed to carry out the land use vision and meet the level-of-service requirements for transportation. Road improvements should be guided by the Roads Strategic Plan and prioritized in the Transportation Needs Report and Roads Capital Improvement Program. Public transportation projects should be identified in the improvement program of the Transit**

**Capital Budget and the Six-Year Transit Development Plan, and the Long-Range Policy Framework for Public Transportation.**

- T-104**      **King County International Airport shall plan, design, and implement services, programs, and facilities in compliance with Federal Aviation Administration regulatory requirements to support a safe, secure, and efficient global aerospace system.**
- T-105**      **King County should develop a long-range financial component that generally evaluates and describes funding sources and strategies to carry out the transportation element. An annual six-year financial plan should be prepared that considers transportation priorities and is used in developing the Capital Improvement Program.**

## **B. Public Transportation**

King County Metro Transit provides bus and van service, ridesharing, paratransit, employer programs and other custom services in cities and unincorporated areas. One of King County's missions is to increase transit ridership by providing the best possible public transportation service, thereby improving regional mobility and the quality of life in King County. To achieve this mission, King County works with other local governments and communities, including Sound Transit, to provide an integrated network of public transportation services.

A major redesign of the King County Metro Transit system was successfully implemented between 1996 and 1999. As a result, Metro Transit now offers more connections between employment centers and suburban activity centers. New partnerships with employers have also led to greater use of transit, carpools and vanpools to ease congestion during commute hours.

The Six-Year Transit Development Plan, 2002-2007, guides Metro Transit operations and capital investments. The plan focuses on the development of public transit service and facilities consistent with land use goals of this comprehensive plan, the Growth Management Act and the King County Countywide Planning Policies. Important issues for the Six-Year Transit Development Plan include: the coordination of transit and roadway improvements along arterials that cross more than one jurisdiction to improve traffic flow throughout the county; the coordination of regional transit services in the three-county area served by Sound Transit and its partner transit systems; and the improvement of intermodal connections.

### **1. Regional Coordination**

Bus, rail, and ferry transit services cross county boundaries, providing the critical transportation links on which our regional economy depends. In addition, all of our transit services depend on convenient connections to our roadway, highway, and nonmotorized systems.

As the region continues to grow, transit routes and schedules must be coordinated between agencies and modes so transit will be a viable and convenient option for our citizens and visitors. It is also imperative that King County seek input from a broad spectrum of county residents to ensure that services meet citizen needs.

- T-106**      **King County should work collaboratively with governments and communities to implement a locally based, regionally linked network of public transportation services and facilities addressing regional, inter-community, and local service needs. King County should actively develop, implement, and promote nonconventional public transportation options as a part of that system.**
- T-107**      **Functional transportation plans should be coordinated with other related transportation plans and programs of other jurisdictions and may include coordinated funding arrangements to maximize the effectiveness of available resources.**

- T-108 King County should work with the Washington State Department of Transportation and Kitsap County to ensure that service and capital plans for ferries are consistent with transit service plans and goals. King County should encourage additional passenger-only ferry services to enhance the county's multimodal transportation network for both commute and recreational trips.**

## **2. Transit Infrastructure**

King County's transit infrastructure and service investments are developed to meet regional, inter-community, and local travel needs throughout the county. The policy framework used to make these investments must balance comprehensive plan requirements, regional cooperation, funding constraints, and community needs.

- T-109 In areas where transit services and ridership demand warrant, the county should invest in transit supportive facilities consistent with the capital and service strategies in the Six-Year Transit Development Plan.**

## **3. Linking Transit and Land Use**

To support transit ridership throughout the county, King County encourages land use policies that link denser development with transit service. It costs more to provide transit service in low-density, single-use communities. In denser, mixed-use communities like downtown Seattle, Belltown, downtown Bellevue and Renton, transit routes have high ridership and recover a high percentage of their operating costs, allowing for more frequent service. Transit-oriented development (TOD) and transit centers in transit corridors can provide similar benefits.

- T-110 King County and local cities should adopt transit supportive road design standards, site access guidelines and land use regulations to promote transit use, high-density development, mixed uses and reduced parking in the Urban Growth Area. Site design should stress connectivity with adjacent neighborhoods and other land uses via transit, pedestrian and other nonmotorized facilities.**
- T-111 Transit centers and park-and-ride lots should include safe and convenient access for buses, high-occupancy vehicles, pedestrians and bicycles to minimize conflicts with other traffic. Mixed land uses should be encouraged at transit centers and park-and-ride lots to meet passenger and commuter needs and reduce vehicle trips. Park-and-ride facilities should be designed with consideration of the most efficient use of land.**
- T-112 King County supports transit-oriented development in transit corridors. King County shall encourage public/private partnerships to propose opportunities for joint transit-oriented development. Such developments should provide priority access for transit, pedestrians, bicyclists, car and van pools and other alternatives to single-occupant vehicles.**

## **C. Regional and Freight Mobility**

King County's transportation system relies heavily on freeways and arterials to move people and goods. As federal and state highways become more congested, efficient operation of the regional arterials has become more important. The management of this arterial system is now a central part of King County's efforts to sustain the region's livability and economic health. King County uses advanced information processing, communications, sensing, and control technologies to facilitate management of the arterial system.

Freight mobility is critical to King County's economy and western Washington's role as a major national and international trading region. King County should support efforts to plan and create a fast, reliable freight transportation system in the region. To maintain the region's competitive edge, our transportation infrastructure must provide for the efficient movement of goods and freight to and from our port and industrial areas balanced with the needs of general purpose and high occupancy vehicle traffic.

The freeway and arterial system that is most crucial to the movement of people and goods is included in the Metropolitan Transportation System (MTS) and Regional Arterial Network (RAN). The MTS is the system for the four-county region and is documented in PSRC's Destination 2030. RAN is an integrated system of roadways that are critical for the movement of people and goods in King County. The RAN approach encompasses growth management and capital investment strategies for improved mobility between urban centers. Since many RAN corridors pass through multiple jurisdictions, RAN stresses a regional, multimodal approach to coordinate improvements such as transit enhancements, additional capacity, traffic signals timed for maximum mobility, and high-occupancy-vehicle lanes for buses and carpools. Together the MTS and RAN comprise a very important, high capacity system for moving people and goods.

- T-113      King County shall be a regional proponent for freight planning and mobility projects and actions that result in a reliable and efficient freight transportation system. The county should identify opportunities to create financial partnerships to achieve these goals.**
- T-114      King County should identify and develop major transportation projects, including traffic operations and safety related projects, which improve freight mobility. This work shall be coordinated with local jurisdictions, other counties or regional agencies, the state, ports, and the private sector.**

## **D.      Transportation Demand Management**

To sustain and enhance regional mobility, King County should be a leader in implementing programs and land use measures that encourage people and businesses to reduce single occupant vehicle trips. Transportation Demand Management (TDM) covers a broad range of efforts to reduce single-occupant vehicle travel including telecommuting, congestion pricing, parking management, nonmotorized travel, site design standards, public information, ridesharing, public transportation, joint use of parking facilities, and park and ride and other intermodal transfer facilities. Transportation demand management contributes to successful implementation of new private and public development, concurrency, the regional arterial network, and other transit and road investments such as High Occupancy Toll (HOT) lanes, High Occupancy Vehicle (HOV) lanes, and Intelligent Traffic Systems (ITS).

- T-115      Transportation Demand Management (TDM) strategies should be used to promote travel efficiency and energy conservation and reduce the adverse environmental impacts of the transportation system. These strategies should include commute trip reduction, demand management and system management. TDM measures may include telecommuting, congestion pricing, parking management, nonmotorized travel, site design standards, public information, ridesharing, public transportation, joint use of parking facilities, and park and ride and other intermodal transfer facilities.**
- T-116      Transportation demand and system management strategies beyond those adopted as county regulation may be considered as one of a menu of measures to mitigate for traffic impacts of proposed development. Transportation demand and system management strategies, as well as other mitigation requirements may be imposed on new development as mandatory mitigation measures as necessary to meet the requirements for mitigation of impacts pursuant to the State Environmental Policy Act and the State Subdivision Act.**

- T-117**      **Management of employee parking, such as the provision of preferred parking for high-occupancy vehicles and bicycle parking, should be used to support alternatives to commuting by single-occupant vehicles. Employers should consider the accessibility to adequate public transportation and high-occupancy vehicle facilities and services when developing site and parking plans.**
- T-118**      **King County should participate financially in efforts to implement Transportation Demand Management strategies, including policies developed through regional consensus and adopted by the county. To this end, the county shall identify funds to implement transportation demand management strategies, public education/information, research and planning.**
- T-119**      **King County should work with the Washington State Department of Transportation, Puget Sound Regional Council, and cities to develop and implement a regional policy on appropriate applications of transportation pricing strategies that reflect the higher cost of peak hour automobile usage.**
- T-120**      **King County should work with the cities and other affected agencies to develop a regional parking strategy. This strategy should be consistent with regional and local transportation plans. King County should encourage shared parking facilities in areas where high-density, mixed-use development is planned and where walking is convenient for short trips. This strategy should include establishing minimum and maximum parking ratios.**



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## II. Linking Transportation Infrastructure and Services with Growth

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### A. Land Use

The transportation element is based on adopted targets for household and employment growth to the year 2022. These growth targets have been developed with consensus of the cities and are based on a countywide growth strategy that encourages growth in the urban areas where public facilities exist or can be provided efficiently. The new demands for travel created by such growth could be accommodated consistent with level-of-service standards, revenue forecasts and the overall King County land use development strategy and vision.

The growth targets are the basis of the transportation element and consistent with land capacity and density estimates used to calculate travel demand in the county. Travel demand was used to project the needs for transportation system improvements. The population targets for each area should be considered as minimum growth amounts that may be exceeded under unexpected scenarios of growth and development. The expected growth in housing units includes development proposals that are already in the permitting process and are termed pipeline development.

King County's transportation system should improve the mobility of residents providing greater access to housing, jobs, goods and services, shopping and recreation, all of which are characteristic of a high quality of life. The transportation component of this plan establishes a vital link between land use and the transportation facilities and services needed to support growth. The land use vision established in this plan has been used to develop the transportation policies, needs, financing, and strategies.

- T-201      The transportation system should provide mobility choices for county residents, visitors and businesses in support of Destination 2030, the regional transportation strategy; Vision 2020, the region's urban growth strategy; and the county's land use and development vision, goals and policies.**
- T-202      Travel modes should be interconnected to form an integrated, coordinated and balanced multimodal transportation system that serves the travel needs of the county both effectively and efficiently.**
- T-203      In addition to encouraging transit, and nonmotorized mobility choices including pedestrian and bicycle travel, the transportation system should address the needs of persons with disabilities. King County should evaluate and implement, when appropriate, innovative ways to address these needs in the design and operation of transportation infrastructure, facilities, and services.**
- T-204      The transportation system should include:**
- a.   Freeways, arterial streets and local/neighborhood streets;**
  - b.   Local and express bus transit and paratransit services, including Americans with Disabilities Act (ADA) service programs;**
  - c.   High-capacity transit;**
  - d.   High-occupancy-vehicle lanes and ridesharing facilities;**
  - e.   Demand and system management programs;**
  - f.   Facilities and programs for pedestrians, bicycles and equestrians;**
  - g.   Facilities to accommodate freight and goods delivery, including railroads, intermodal yards and distribution centers;**

- h. Airports; and
- i. Marine transportation facilities and navigable waterways.

- T-205**      **The transportation system in the Urban Growth Area should be consistent with urban development policies and growth targets. System improvements should implement the Urban Land Use Chapter and be prioritized according to the capital and services strategies in the Six-Year Transit Development Plan and the goals, strategies, and actions in the Roads Strategic Plan and should be reflected in the Transportation Needs Report.**
- T-206**      **The transportation system in the Rural Area and Natural Resource Lands should be consistent with their rural/resource character. Projects will be prioritized to address safety, operations, and capacity improvements that correct existing deficiencies or serve development that is already in the permitting process. All projects should emphasize safety, maintenance, and environmental quality.**
- T-207**      **King County shall not construct and shall oppose the construction by other agencies of any new arterials or freeways or any additional arterial or freeway capacity in the Rural Area or Natural Resource Lands except for segments of certain arterials that pass through rural lands to serve the needs of urban areas. Any capacity increases to these urban connector arterials shall be designed to serve mobility and safety needs of the urban population while discouraging development in the surrounding Rural Area or Natural Resource lands.**
- T-208**      **King County recognizes the impact to rural area mobility caused by urban connector arterials that traverse the rural area, and should work with state and federal agencies to mitigate these impacts when consistent with adopted transportation policy.**

## **B. Travel Forecasts**

Travel forecasts provide one of the important steps in linking land use and transportation. The land use vision and growth targets for planning areas have been allocated to the county's transportation zone system. This provides the level of detail needed to develop travel forecasts to analyze future transportation system performance and to identify system improvement needs. Travel forecasts are based on the regionally adopted household and job growth targets for 2022 for the Urban and Rural Areas. The travel forecasting process is based on the Puget Sound Regional Council's modeling and forecasting techniques.

- T-209**      **The travel forecasts used to identify transportation improvements/needs shall be prepared consistent with state law and on a schedule that coincides with a major comprehensive plan update as outlined in King County Code.**

## **C. Level of Service Standards**

The Growth Management Act (GMA) requires level of service (LOS) standards for all arterials and transit routes to judge performance of the transportation system. The GMA also calls for specific actions and requirements for bringing into compliance facilities or services that are not meeting the adopted LOS standard. King County's LOS standards comply with growth management policies of encouraging growth in the urban area while restricting growth in the rural area.

Level of service is a qualitative measure that describes traffic flow and is often represented by a system using the letters A through F. Level of service A is the highest quality of service and level of service F is the lowest. Level of service B is indicative of stable traffic flow. However, unlike level of service A,

operating speed is beginning to be restricted by other traffic. At level of service E, operation is unstable, and speeds are reduced but will fluctuate widely from point to point. There is little independence of speed selection and maneuverability at level of service E. Level of service F is indicative of forced flow of traffic with extremely low speeds and long delays at intersections.

King County uses two sets of measures to determine whether a proposed development meets the LOS standards. They are an averaging of traffic congestion on roadways in the area and a measure of traffic congestion in an individual corridor. Area wide averaging is used to judge performance of the road system as measured against the adopted LOS standards. An individual corridor measure is used to judge performance of monitored corridors as measured against the adopted LOS standards.

- T-210      The level of service (LOS) standard for the Urban Area and designated Rural Towns shall be E except as provided in Policy T-209. The LOS standard for the Rural Area shall be B except as provided in Policy T-209. These standards shall be used in concurrency testing.**
- T-211      In Potential Annexation Areas where King County has a preannexation agreement with the annexing city, the county will apply the annexing city's adopted level of service (LOS) standard within that Potential Annexation Area.**
- T-212      The LOS standard for certain minor residential and minor commercial developments, along with certain public and educational facilities, shall be LOS F. This standard shall be used in concurrency testing.**
- T-213      Level of service guidelines for allocating transit service should be developed to be consistent with the Six-Year Transit Development Plan's policy objectives. The land use criteria that are used to determine where future transit service is allocated are established in the Six-Year Transit Development Plan's service strategies. These Service Strategies provide the framework for identifying the level of service that each community can plan for as the Six-Year Transit Development Plan is implemented.**

## **D. Concurrency**

The Growth Management Act (GMA) requires local jurisdictions to adopt and enforce ordinances that prohibit development approval if the development causes the level of service (LOS) on identified county arterials or certain state roads to decline below the adopted LOS standards. King County's Transportation Concurrency Management (TCM) program was developed to address the GMA's concurrency requirement. The TCM program requires that transportation facilities must be available to carry the traffic of a proposed development at county LOS standards, or else the proposed development cannot be approved. The requirements of King County's TCM program do not apply to transportation facilities designated by the Washington State Department of Transportation (WSDOT) as "highways of statewide significance."

- T-214      King County's transportation concurrency test shall be a two-part test, involving area-wide averaging of roadway congestion and measuring of congestion in specific roadway corridors.**
- T-215      A Certificate of Transportation Concurrency confirms that adopted level of service (LOS) standards are met by a proposed nonresidential development or a residential concurrency zone. A certificate of transportation concurrency will be issued only if a proposed development or residential concurrency zone passes both parts of the two-part transportation concurrency test.**

- T-216      To ensure that adopted LOS standards are met, transportation improvements needed to serve new development must be currently in place, or construction for needed improvements must be funded in the adopted Six-Year Capital Improvement Program.**

## **E.      Mode Split**

"Mode split" means the share of total vehicle traffic by mode – bus, nonmotorized vehicle, carpool, single occupant vehicle, etc. - during a particular time period. Mode split varies by time of day, weekdays vs. weekend, and location. A higher mode split for non-single occupant vehicles, usually during weekday peak periods, means fewer vehicles are needed to carry a given number of people. Mode split is used as a measure of the efficiency of the transportation system.

Countywide Planning Policy T-10 calls for local jurisdictions to develop mode split goals to established employment centers. Unincorporated King County does not have any established employment centers although cities within King County served by Metro Transit do. As part of the Six-Year Transit Development Plan development, King County coordinates the establishment of mode split goals for cities within the county.

The Metropolitan Transportation Plan provides policy guidance for determining mode split goals. This chapter is based on the mode split policy guidance provided by that plan.

- T-217      The county should pursue mode split goals through the implementation of policies that support transportation demand management, transit service improvements, and expansion of high-occupancy vehicle programs. The county should recognize and support efforts locally, regionally, and statewide to advance Transportation Demand Management technologies.**

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## III. Transportation System Planning and Design

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### A. Arterials and Streets

King County designs, builds, operates and maintains roads, bridges and pathways in unincorporated areas of King County. The goal is to make the county's transportation system safe and efficient for all uses and modes of travel. King County's arterial system represents a broad range of mobility options. In the past, the arterial system has been characterized as the system for moving cars and other vehicles. The arterial system should be viewed as a resource for moving people and goods by many modes of transportation, including autos, carpools, buses, bicycles, pedestrians, and trucks.

- T-301**      **The most cost-effective improvement should be considered first to solve existing and future deficiencies before higher-cost, capital-intensive projects are considered. Efficiency improvements supporting high-occupancy-vehicles (HOV) and transit operations on existing roads should be a higher priority than general capacity improvements enhancing single-occupant-vehicle (SOV) travel.**
- T-302**      **Transportation improvements should be designed, built, and operated to minimize air, water and noise pollution and the disruption of natural surface water drainage in compliance with provisions and requirements of applicable federal, state and local environmental regulations. Natural and historic resource protection should also be considered. Particular care should be taken to minimize impacts where the location of such facilities could increase the pressure for development in sensitive areas or rural or resource lands.**
- T-303**      **Needed rights-of-way, strategies to reduce demand and off-site improvements should be identified and required as conditions of development approval to the extent that such conditions are directly related to impact mitigation and will benefit the development.**
- T-304**      **King County's road design and construction standards shall promote safe, cost-effective roads that encourage multimodal use, reflect the different needs and service levels for the Urban Growth Area and Rural Area, responding to the different needs for areawide mobility and access to abutting properties.**
- T-305**      **Roadway safety improvements increase the safety of the traveling public by reducing the number and severity of accidents, providing refuge for pedestrians and bicyclists, providing positive traffic control, minimizing driver decisions, reducing hazardous roadway conditions, and reducing unexpected situations. Improvements of this type include, but are not limited to, pathways, traffic signals, turn and merge lanes, provisions for sight lines, removal of roadside obstacles, and improvements to lessen the likelihood and impacts of localized flooding.**
- T-306**      **Appropriate neighborhood traffic control measures, land use, zoning, design and road standards and development conditions should be used to improve safety, transit access and nonmotorized travel in residential neighborhoods.**

- T-307** King County should encourage the development of highly connective, grid-based arterial and nonarterial road networks in new developments and areas of in-fill development. To this end, the county should:
- a. Make specific determinative findings to establish nonarterial grid system routes needed for public and emergency access in in-fill developments at the time of land-use permit review.
  - b. Encourage new commercial, multifamily, and single-family residential developments to develop highly connective street networks to promote better accessibility by all modes. The use of cul-de-sacs should be discouraged, but where they are used, they should include pedestrian pathways to connect with nearby streets.
- T-308** Development proposals should extend the public road system through dedication when the extension is in the public interest and is reasonably necessary as a result of the impacts of the development. The impacts that may warrant such an extension include, but are not limited to, impacts on neighborhood circulation, increases in the use of arterials for local vehicular trips, the reductions in traffic safety through uncoordinated and/or inadequately spaced street access to the arterials, and restrictions on the availability of alternative emergency access routes.
- T-309** The county should limit the placement of facilities or physical barriers and improvements, such as buildings, utilities, and surface water management facilities within specific areas of a development in order to allow for the future construction of roads to facilitate the establishment of a safe and efficient traffic circulation network, or to retain the availability of access to an adjacent property.
- T-310** As a condition of the approval of new development, the county should require the improvement of existing offsite roadways and undeveloped road rights-of-way, and/or other strategies to reduce demand on roads when the improvement or strategy is reasonably necessary as a result of the impacts of the development. The impacts that may warrant such improvements include, but are not limited to, those that create safety concerns, raise road operational issues or increase the number of residences served by a single access route.
- T-311** Arterial Functional Classification should be implemented through the King County Road Design and Construction Standards. The comprehensive plan's Urban Growth Area boundary should provide the distinction between urban and rural arterials.

## **B. Public Transportation Strategies**

King County's transit infrastructure and service investments are consistent with the capital and services strategies in the Six-Year Transit Development Plan and balance policy requirements, regional cooperation, funding constraints, and community needs.

- T-312** King County should plan, design, and implement a system of services and facilities that supports integration of regional and local services and that facilitates access to the system for pedestrian, bicyclists, transit collection/distribution services, and persons with disabilities, thereby providing a viable and interconnected network that is an alternative to auto usage.
- T-313** King County should support local and regional growth management plans and policies. King County should work with other jurisdictions to focus new and existing services and facilities to support targeted land use concentrations identified

in local comprehensive and regional plans and within the Urban Growth Area of King County.

- T-314** King County should adopt transit supportive policies assigning highest priority to serving urban centers and manufacturing centers with transit service, including transit priorities on arterial streets jointly designated for transit priority by the county, cities, and the Washington State Department of Transportation.
- T-315** King County should use a community-based planning process when working with cities and unincorporated area communities to develop effective transit services including consideration of local circulation needs, feeder bus service, fixed and nonfixed routes, and various coach sizes appropriate to the neighborhood scale and market.
- T-316** High-Capacity Transit facilities and services which are consistent with, and supportive of, the comprehensive plan should be supported and implemented.

### **C. Nonmotorized Transportation**

The nonmotorized program is an essential element of King County's multimodal transportation system. Nonmotorized transportation users include pedestrians, bicyclists and (in certain areas of the county) equestrians. While each group has different needs, they all rely on King County's road system for safe access. Trail networks, sidewalks, bike lanes, and other nonmotorized improvements encourage walking and cycling. They also improve access to transit stops, resulting in increased transit ridership and improving the quality of life in their communities.

- T-317** Efforts should be made to improve nonmotorized transportation countywide to increase safety, public health, mobility and convenience for nonmotorized modes of travel. These efforts should emphasize the ability of nonmotorized modes to extend the efficiency of regional transit, promote personal mobility in a range of land use areas and expand the transportation alternatives available to the public to form a complete or connected network.
- T-318** King County should evaluate and implement, where appropriate, nonmotorized transportation when general transportation improvements are made, including road construction, reconstruction, subdivision development and development of new transit systems.
- T-319** New land use plans, subdivisions, and urban planned development proposals should include enhancements to nonmotorized mobility and access to surrounding areas.
- T-320** King County design standards should allow flexibility in selecting, and the authority to require design features that benefit nonmotorized safety and accessibility.
- T-321** Unused rights-of-way should be considered for development as pedestrian, bicycle, equestrian or accessible connectors.
- T-322** King County should seek to improve pedestrian safety both within residential areas and at arterials near pedestrian activity centers such as schools, retail centers, concentrations of housing, transit facilities and trails. Within residential areas, King County shall offer a comprehensive package of neighborhood traffic services to unincorporated area residents and, on a contract basis, to local jurisdictions. Pedestrian safety improvements should include adequate signage, markings and

**signalization where warranted. To foster safe walking conditions for students, King County should continue the School Pathways Program.**

## **D. Air Quality**

The Washington State Clean Air Conformity Act establishes guidelines and directives for implementing the federal Clean Air Act Amendments. The Washington Act specifically links air quality conformity to growth management planning efforts at the local and regional level.

The Washington Administrative Code states that local transportation plans shall include, “. . . policies and provisions that promote the reduction of criteria pollutants that exceed national ambient air quality standards.” (WAC 173-420-080)

Global climate change continues to be a focus of local concern. It is clear that greenhouse gas emissions from transportation sources are a significant contributing factor to global climate change. Reducing greenhouse gas emissions from transportation sources is an important goal for King County.

The following policies have been developed to be consistent with and support the policies in Chapter 4, Section 1B of this Plan, "Air Quality and Forest/Tree Cover."

- T-323        The transportation system should conform to the federal and state Clean Air Acts by maintaining its conformity with the Metropolitan Transportation Plan of the Puget Sound Regional Council and by following the requirements of Chapter 173-420 of the Washington Administrative Code.**
  
- T-324        King County should work with the Puget Sound Regional Council, the State Department of Transportation, transit agencies and other jurisdictions in the development of Transportation Demand Management measures and other transportation and air quality programs where warranted. This work would address the requirements of the federal Clean Air Act as amended, the air quality provisions of the federal Transportation Equity Act for the 21st Century and the Washington State Clean Air Conformity Act and should include measures to address greenhouse gas emissions.**
  
- T-325        King County should consider the following Transportation Demand Management strategies to reduce criteria pollutants and greenhouse gas emissions including, but not limited to: trip reduction strategies, transportation pricing controls, employer transportation management programs, work schedule changes, ridesharing programs, dedicated facilities for high-occupancy-vehicles, traffic flow improvements, parking management, bicycle and pedestrian programs, mixed use development, and car sharing programs.**



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# IV. Finance

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King County's transportation vision depends on adequate funding for transportation needs. The Growth Management Act requires that the county include an analysis of funding capabilities, a multiyear financing plan based on needs and a discussion of how to raise additional funds or reassess growth and level-of-service standards to resolve a potential funding shortfall for at least a ten-year period. This section provides such information and discusses the extent to which the transportation facilities can be funded within a reasonable revenue forecast and expenditure schedule.

## A. Funding Capabilities: Road-Related Sources

Financial viability to support transportation capital needs is tested at two levels. Initially, a 20-year plan is identified to meet transportation improvements needed to support the plan vision. The 20-year plan provides for an assessment of revenues from currently available resources and identifies reasonable options for securing additional revenues over the life of the plan. Secondly, the annual capital improvement program preparation provides a six-year window review that examines the specifics of how to implement the financing plan.

King County receives road revenues from a variety of sources, including unincorporated King County property tax, federal and state grants, state gas tax, local taxes and road mitigation payments from private developments. A full description of transportation financing can be found in the Roads Strategic Plan.

## B. Revenue Shortfall

Comparing the plan's future transportation needs with projections of revenue from current sources shows the total revenue shortfall over the 20-year planning horizon. Different strategies or actions can be identified to address this shortfall. As an example, priority for funding may be given to only projects directly related to achieving the level-of-service standard, to projects that are related to providing capacity or to noncapacity projects.

The intent of this plan is not to demonstrate a dollar by dollar accounting of transportation needs and revenues. Rather, it is to demonstrate the reasonableness of the plan and its implementation and to show that the goals of growth management can be met. Other sections of this chapter describe how the transportation element addresses growth management goals for transportation and adequate facilities/services. The reasonableness of the plan's transportation element focuses on the shortfall and the potential for funding future needs.

Strategies to address the shortfall can range from reconsideration of the transportation needs to new revenue options to changes in levels-of-service to revisions of the land use policies. Decisions on what to do should be made based on monitoring implementation of this plan. The following actions can be used to balance the funding shortfall of the plan:

1. Reduce transportation funding needs:
  - Reevaluate the need for projects;
  - Promote transportation demand management actions to reduce vehicle trips; and
  - Rescope project needs and downsize where possible.
2. Develop new revenue options:
  - Increase revenues by using existing sources;
  - Participate in regional funding strategy development;

- Seek new or expanded revenue sources; and
  - Public/private participation.
3. Change level-of-service:
    - Adjust the level-of-service standard to allow more growth;
    - Adjust the level-of-service standard to allow more growth in selected areas only; and
    - Adjust the level-of-service standard to discourage more growth.
  4. Change land use:
    - Revise the land use plan to encourage/discourage growth in selective areas;
    - Adjust the target forecast; and
    - Delay development until facilities are adequate.

- T-401      Financial resources available for transportation improvements should support a program of capital facilities needed for a multimodal transportation system. The Transportation Priority Process should give priority to critical capacity projects needed to achieve level-of-service standards in the Urban Area.**
- T-402      The essential maintenance, preservation, safety and operations costs of the transportation system should be funded prior to other costs for capital improvements so that existing investment is protected and current mobility is not degraded.**
- T-403      During annual review of the Comprehensive Plan, King County should consider and address any potential shortfalls that may occur between expected revenues and needed improvement costs. Such resolution could include a reassessment of land use, growth targets, level-of-service standards and revenue availability.**

### **C.      Urban Unincorporated Area Road Financing**

Each area of urban unincorporated King County is unique in terms of its character, the issues that its residents care most about, and its specific road-related needs. By targeting road capital funds toward each area's most pressing needs, the county can provide the greatest overall benefit for each public dollar spent. This prioritization process is particularly important since current funding is inadequate to meet all needs and since road infrastructure is often an issue in annexation discussions.

Road improvements essentially fall into three areas:

- 1. Operational and safety improvements** such as signals, turn lanes, lighting, and crosswalks improve system efficiency and safety. These improvements are needed throughout the urban unincorporated area.
- 2. Urban retrofit improvements** reconstruct existing street systems to current urban road design standards (curb, gutter and sidewalk, enclosed drainage, and adequate surface water detention facilities) without adding more than a modest amount of additional capacity. Urban retrofit improvements are especially needed in the West Hill and North Highline communities, where most neighborhoods were developed before current urban road design standards were established.
- 3. Capacity improvements** build new roads or add two or more lanes to existing roads. These projects generally are needed in areas with significant congestion or that have greater potential for new development.

Continuation of funding for transportation projects that alleviate existing deficiencies is a high priority since all areas have existing capacity, operational, and safety deficiencies at one level or another.

- T-404** King County's urban road investments shall address the unique needs of each unincorporated area and shall target the road deficiencies in each area that act as barriers to infill, redevelopment, annexation, and the achievement of growth targets.
- T-405** Projects addressing existing capacity, operational, and safety deficiencies shall have a high priority throughout the urban unincorporated area.
- T-406** When funding transportation projects in areas where annexations or incorporations are expected, the Department of Transportation should seek interlocal agreements with the affected cities and other service providers to provide opportunities for joint grant applications and cooperative funding of improvements.